JANUARY/FEBRUARY 2021

ENGINEERING DIMENSIONS

GOVERNANCE

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ENGINEERING DIMENSIONS

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CHANGE IS UPON US

By Nicole Axworthy

Every year, PEO's Council election season brings about a frenzy of excitement and nervousness for the regulator's staff, especially for those working directly with engineer candidates running for Council to ensure nominations and election publicity material comply with the procedures. Deadlines are tight—candidate brochures and eblasts need to be sent out, voting processes must be set up and All-Candidates Meetings are to be planned and scheduled, among other things. It's a collaborative effort for various PEO departments to run an orderly and well-managed operation.

Here at *Engineering Dimensions*, we gear up for a new group of councillors—some of whom are new to Council while others are veterans, back to serve another term—whom we're hoping are willing to lend an authoritative voice to future articles. We also anticipate our annual news article announcing successful candidates, the Introduction to PEO Council section welcoming the group after they begin the new Council year at PEO's annual general meeting, and the formal photoshoot and feature article of the new PEO president.

This year, I encourage you to support your fellow engineers who are offering their time and expertise on PEO's 2021–2022 Council to help PEO make important decisions on its future. As you'll read in our feature article this issue, "At the helm: The role of Council in making PEO a more effective regulator" (p. 32), the next two years could be an exciting time to serve on Council as PEO undergoes a number of governance, operational and organization improvements in an effort to become a better regulator. We speak with current councillors about their role in decision-making and how they balance their volunteer commitments to PEO with their careers and other personal obligations. If you aren't running for Council yourself, you can do your part by casting your ballot for this year's elections by February 19 (see the insert in the centre of this issue for candidate statements).

Speaking of PEO decisions, this issue's Gazette—otherwise known as the "blue pages," a popular section of *Engineering Dimensions*—includes a notable discipline decision. If you've been following the widely publicized quasi-criminal trial and the coroner's inquest into the death of Radiohead drum technician Scott Johnson as a result of the 2012 stage collapse at Downsview Park in Toronto, you can now flip over to page 20 to find the outcome of PEO's own discipline proceedings regarding the conduct of former engineer Domineco Cugliari, who was the engineer responsible for that very stage.

On a final note, engineering communities are gearing up for this year's National Engineering Month, which includes numerous virtual events across the province throughout the month of March. Don't miss the events happening in a city near you (p. 18). **e**

THIS ISSUE The results of PEO's Council elections will determine the makeup of Council—PEO's governing body—for the next year, and it is this Council that will determine how PEO progresses through its governance renewal. In this issue, we explore that governance renewal and, importantly, how and why PEO members should vote and seek office on Council.

YOUR ROLE IN PEO's TRANSFORMATION

By Marisa Sterling, P.Eng., FEC

Right now, PEO is holding its annual Council elections. This is a critical time for the future of PEO, and I want to tell you why.

PEO is going through immense transformation during a pandemic. Once complete, PEO will be not only catching up with the rapid pace of technological and societal change but also leading the way. This unprecedented undertaking will require vision, a growth mindset and an agile leadership style. Also required is compassion, humility and inclusive leadership. After all, we are a profession of people whose job is to protect people. Whether we are licence holders, businesses with certificates of authorization or PEO staff, our success will be greater by not leaving anyone behind in this time of change.

So, what's the change? I believe it's about sustainability—the protection of our climate, our communities and our quality of life. Engineers and governments look to achieve sustainability by improving infrastructure, such as water, transit and health systems. Today and into the future, society will expect more from these systems, such as delivering strong and dependable broadband internet that is equally accessible across the province. These systems are being and will continue to be impacted by external factors, such as extreme weather that causes floods and power outages. Therefore, the change for engineers is to evolve their knowledge and practice to solve increasingly complex problems.

So, what's the change for PEO? PEO must change to continue to ensure that Ontario's engineers and engineering companies have the skills to solve these complex problems, that they are accountable if they make a mistake and that there are standards of practice in place to keep the public safe. Specifically, PEO must make 15 changes to its operations and governance, as outlined in a thorough, third-party review that PEO voluntarily initiated in 2018. PEO took the first step towards change by accepting these recommendations and being willing to let go of its current ways, as needed. That was in June 2019. Since then, PEO has been working to transform. Here are the successes so far:

- PEO has started to simplify and expedite its licensure process. Application file processing has improved since June 18, 2020, when PEO launched a digital application process and started accepting licence applications by email. Next, PEO will need to improve how it manages the over 50 per cent of applications that are submitted before the licence requirements are met and to decide which internal review processes that are not required by our legislation are helpful and which are not.
- PEO has filtered all 93 of its current activities that are permitted under the *Professional Engineers Act* and concluded that 40 are regulatory, 18 are governance and 35 are neither. PEO will next clarify whether the Council or CEO/registrar is accountable for the outputs of each activity.
- PEO has started to reorganize its staffing to build capacity and agility. After conducting an organizational review, two human resources professionals have been hired to provide staff with ways to build resiliency skills, decrease stigmatizing attitudes and increase mental health well-being. A vice president of governance has also been hired to lead the organization's culture change and restructuring.
- PEO has established a governance philosophy that includes being primarily a regulator, adopting a risk model to measure and report on how it is protecting the public interest and fostering a healthy, respectful, inclusive and professional culture. Regulatory committees will add net value to PEO's mandate; governance committees will support Council's accountabilities for financial, human resources and legislation oversight; and all PEO volunteers and staff will receive mandatory training on their respective roles. The effectiveness of Council, committees and the CEO/registrar will be evaluated annually. Council will right-size itself to become potentially smaller than its current size of 25, while ensuring it has the competencies and individuals to serve on governance committees. And lastly, Council will approve strategic priorities to protect the public interest. These governance directions will lead to a new vision, policies and potential act and bylaw changes recommended by May 2022.

PEO's transformation project is a long-term effort, involving several years and the work of multiple Councils. Your participation is vital. To self-regulate, we need every engineer and certificate holder to take action. The simplest step is to vote each year. If you have more time to give, then PEO needs you to serve on a committee or run for PEO Council. Whatever way you contribute, you will see the value pay back. I am confident that PEO will achieve our change vision and I am excited to see PEO emerge as the modern, agile regulator the public needs us to be. I hope you will join us in reimagining PEO together. **e**

VOTRE RÔLE DANS LA TRANSFORMATION PEO

Par Marisa Sterling, P.Eng., FEC

En ce moment, PEO tient ses élections annuelles de Conseil. C'est un moment critique pour l'avenir de PEO et je tiens à vous dire pourquoi.

PEO exécute une immense transformation pendant une pandémie. Une fois celle-ci terminée, PEO ne se contentera pas de rattraper le rythme rapide des changements technologiques et sociétaux, mais sera aussi à l'avant-garde. Cette entreprise sans précédent nécessitera une vision, une mentalité orientée sur la croissance et un style de leadership dynamique. Il faudra également faire preuve de compassion, d'humilité et d'un leadership inclusif. Après tout, nous sommes une profession de personnes dont le travail consiste à protéger les individus. Que nous soyons titulaires d'une licence, soyons une entreprise avec certificat d'autorisation ou le personnel de PEO, notre succès sera d'autant plus grand que nous ne laisserons personne derrière nous en cette période de changement.

Alors, quel est le changement ? Je crois qu'il s'agit de durabilité, c'est-à-dire de la protection de notre climat, de nos communautés et de notre qualité de vie. Les ingénieurs et les gouvernements cherchent à atteindre la durabilité en améliorant les infrastructures, telles que les systèmes d'approvisionnement en eau, le transport et la santé. Aujourd'hui et à l'avenir, la société attendra davantage de ces systèmes, comme la fourniture d'un accès Internet à haut débit solide et fiable, accessible de manière égale dans toute la province. Ces systèmes sont et continueront d'être affectés par des facteurs externes, tels que les conditions météorologiques extrêmes qui provoquent des inondations et des coupures de courant. Par conséquent, le changement pour les ingénieurs consiste à faire évoluer leurs connaissances et leur pratique pour résoudre des problèmes de plus en plus complexes.

Alors, quel est le changement pour PEO ? PEO doit changer pour continuer à garantir que les ingénieurs et les sociétés d'ingénierie de l'Ontario ont les compétences nécessaires pour résoudre ces problèmes complexes, qu'ils sont responsables s'ils font une erreur et qu'il existe des normes de pratique pour assurer la sécurité du public. Plus précisément, PEO doit apporter 15 changements à ses opérations et à sa gouvernance, comme l'indique un examen approfondi par une tierce partie, volontairement lancé par PEO en 2018. PEO a fait le premier pas vers le changement en acceptant ces changements recommandés et en étant prêt à abandonner ses méthodes actuelles, si nécessaire. C'était en juin 2019. Depuis lors, PEO a travaillé à la transformation. Voici les succès obtenus jusqu'à présent :

- PEO a commencé à simplifier et à accélérer son processus d'autorisation d'exercer. Le traitement des dossiers de demande s'est amélioré depuis le 18 juin 2020, lorsque PEO a lancé un processus de demande numér-ique et a commencé à accepter les demandes de licence par courrier électronique. Ensuite, PEO devra améliorer la façon dont il gère les plus de 50 % des demandes qui sont soumises avant que les conditions de licence ne soient remplies et décider quels processus d'examen interne - qui ne sont pas exigés par notre législation - sont utiles et lesquels ne le sont pas.
- PEO a déterminé ses 93 activités actuelles autorisées par la loi sur les ingénieurs et a conclu que 40 sont réglementaires, 18 sont de gouvernance et 35 ne sont ni l'une ni l'autre. PEO précisera ensuite si le Conseil ou le PDG/registraire est responsable des résultats de chaque activité.
- PEO a commencé à réorganiser son personnel pour renforcer ses capacités et son dynamisme. Après avoir procédé à un examen organisationnel, deux professionnels des ressources humaines ont été engagés pour fournir au personnel des moyens de renforcer les compétences en matière de résilience, de réduire les attitudes stigmatisantes et d'accroître le bien-être en matière de santé mentale. Ensuite, un vice-président de la gouvernance sera engagé pour diriger le changement de culture et la restructuration de l'organisation.
- PEO a établi une philosophie de gouvernance qui comprend le fait d'être principalement un régulateur, l'adoption d'un modèle de risque pour mesurer et rendre compte de la manière dont notre organisation protège l'intérêt public et la promotion d'une culture saine, respectueuse, inclusive et professionnelle. Les comités de réglementation ajouteront une valeur nette au mandat de PEO ; les comités de gouvernance soutiendront les responsabilités du Conseil en matière de surveillance des finances, des ressources humaines et de la législation ; et tous les bénévoles et le personnel de PEO recevront une formation obligatoire sur leurs rôles respectifs. L'efficacité du Conseil, des comités et du PDG/registraire sera évaluée chaque année. Le Conseil se redimensionnera pour devenir potentiellement plus petit que sa taille actuelle de 25 membres, tout en s'assurant qu'il dispose des compétences et des personnes nécessaires pour siéger aux comités de gouvernance. Enfin, le Conseil approuvera les priorités stratégiques pour protéger l'intérêt public. Ces orientations en matière de gouvernance déboucheront sur une nouvelle vision, des politiques et des modifications potentielles des lois et règlements recommandées d'ici mai 2022.

Le projet de transformation de PEO est un effort à long terme, sur plusieurs années et impliquant le travail de plusieurs Conseils. Votre participation est essentielle. Pour s'autoréguler, nous avons besoin que chaque ingénieur et détenteur de certificat agisse. L'étape la plus simple est de voter chaque année. Si vous avez plus de temps à consacrer, alors PEO a besoin que vous fassiez partie d'un comité ou que vous vous présentiez au Conseil de PEO. Quelle que soit la manière dont vous contribuez, vous verrez la valeur de votre contribution récompensée. Je suis convaincue que PEO réalisera notre vision du changement et je suis enthousiaste de voir PEO émerger comme le régulateur moderne et dynamique que le public a besoin que nous soyons. J'espère que vous vous joindrez à nous pour ré-imaginer PEO ensemble. e

FROM STABILIZATION TO TRANSFORMATION

By Johnny Zuccon, P.Eng., FEC

Each new year tends to bring with it a hope for something new—a new image, a new attitude, new goals. My one wish over the next 12 months, however, is for a return to some of life's old ways, like my daily commute to the office, visiting freely with friends and family or enjoying a carefree meal at a crowded restaurant. If nothing else, 2020 showed us the importance of many of the simple things we typically take for granted. I've resolved to keep this in mind this year when circumstances are not what I wish them to be.

Professionally, the new year will bring change as we continue to examine PEO's old ways of conducting business and implement evidenced-based decision-making processes that will allow us to become a better, more modern and more effective regulator. Our guide for this process is the Council-approved action plan that was created to address the 15 recommendations from the external regulatory performance review (also known as the Cayton report). The plan is a vital component of an overall PEO-wide strategy that includes implementing the structural changes to our operational organization required to produce the capacity and agility needed to achieve the objectives. It also includes integrating the work of external expertise to assist Council in enhancing its governance capabilities. The plan as well as the Cayton report are available on PEO's website at peo.on.ca/latest-news/external-regulatory-performance-review.

> PROFESSIONALLY, THE NEW YEAR WILL BRING CHANGE AS WE CONTINUE TO EXAMINE PEO's OLD WAYS OF CONDUCTING BUSINESS AND IMPLEMENT EVIDENCED-BASED DECISION-MAKING PROCESSES THAT WILL ALLOW US TO BECOME A BETTER, MORE MODERN AND MORE EFFECTIVE REGULATOR.

IMPROVING THE LICENSING PROCESS

This transformational journey is critical to PEO's future. A vital precursor to addressing some of the more significant change requirements is the need to achieve greater efficiencies within our existing regulatory operations. The most critical of these stabilization projects is reviewing our sizable inventory of paper-based P.Eng. licence applications. Staff developed a three-phased approach to tackle this issue:

- Phase 1 (Discovery): Staff identifies, analyzes and interprets the system data on application files that are currently open, including the status of these files, the process details and how they fit in the current legislative framework. This phase is nearly complete.
- Phase 2 (Development): Staff will identify operational improvement and change opportunities.
- Phase 3 (Action): The desired changes will be implemented.

Our review thus far has revealed that most application delays are primarily caused by one or more of the following issues related to our processes:

- Applicants who are still acquiring the requisite academic qualifications and/or experience. There is currently no common, universal applicant profile at the time of application.
- The lack of a clear timetable for determining when mandated examinations are completed, and experience records submitted.
- A range of processes and protocols that have evolved over time, but which may not be strictly required by the legislative scheme.

Our aim now is to determine where and how changes can be made to ensure our licensing process is (as noted in the action plan) straight-forward, timely, objective and commensurate with the existing *Professional Engineers Act* and its regulations.

OUR DIGITAL TRANSFORMATION

As our work on this progresses, and as part of our necessary evolution from processes that have been largely paper-based, we continue with our recently launched Information Discovery and Digitization Capability (IDDC) project. The IDDC is a records-conversion process that aims to transform paper applications into usable digital information accessible from PEO's licensing and licence holder system. This project is part of a larger digital transformation journey to enable greater automated processing, deeper business intelligence and overall greater efficiencies.

All of this work builds on the advancements we've already made while working remotely, including accepting digital applications by email since June 2020, accepting only completed applications with the required documents and adopting the National Professional Practice Exam as a replacement for the PEO-administered Professional Practice Exam. The events of the past year have proven to be a catalyst to expedite immediate and long-term digital solutions, with the greatest urgency falling within our licensing area. This will continue in 2021 and beyond as we commission a full digital strategy for the organization.

I'm excited about the changes to come and to keeping you apprised of our progress. **e**

PEO REPRESENTATIVES MEET WITH ATTORNEY GENERAL

By Adam Sidsworth

During PEO's virtual meeting with the attorney general on October 27, 2020, PEO President Marisa Sterling, P.Eng., FEC, updated Attorney General Doug Downey on PEO activities, including a recently recommended lieutenant governor-in-council appointee (LGA) process.

PEO's annual meeting with the attorney general is an opportunity to introduce PEO's recently elected president—who serves a year-long term—to the attorney general. Sterling, who took over Council's reins at the virtually held annual general meeting in May 2020, updated Downey on PEO's new Council-approved Skills and Attributes Matrix. The matrix was originally introduced to the attorney general in its initial proposal stage in 2019 by then-President Nancy Hill, P.Eng., LLB, FEC. This year's meeting also included CEO/Registrar Johnny Zuccon, P.Eng., FEC, and Jeanette Chau, MBA, P.Eng., PEO's manager, government liaison programs, while Downey was joined by Patrick Schertzer, senior policy and legal affairs advisor to the attorney general.

At its September 2020 meeting, Council approved the Skills and Attributes Matrix designed to help the provincial public appointments secretariat identify any gaps in the competencies and attributes of Council when considering LGA appointments on behalf of the provincial cabinet, formally called the lieutenant governor in council (LGC) (see In Council, *Engineering Dimensions*, November/December 2020, p. 35). The *Professional Engineers Act* (PEA) allows the LGC to appoint LGAs to PEO Council, of whom a minimum of three must be laypersons (people who are not members of PEO). There are currently eight LGAs on Council.

"The attorney general was very appreciative that we have developed the Skills and Attributes Matrix," Sterling told *Engineering Dimensions*. "We were very clear that we have one significant underrepresented demographic gap on Council—and that's women—and the attorney general immediately responded to and committed to see what he could do to support the public appointment of skilled women or make it known that future appointments should prioritize women to deal with that demographic gap." However, the matrix does not solely look at the gender of potential appointees; rather, it also weighs other key attributes such as experience in finance and accounting, risk management, board and governance experience and demonstrated board leadership.

This was just the second opportunity for a PEO president to meet with Downey, who was appointed to the post in June 2019 after a cabinet shuffle by Premier Doug Ford (see "Premier Doug Ford appoints new attorney general," *Engineering Dimensions*, September/October 2019, p. 10). As the provincial engineering regulator, PEO answers to the attorney general. Sterling noted that the meeting was productive, and she remains confident that Downey will likely embrace the matrix. "As a lawyer, he understands the transition that the law profession went through to increase the representation of women," Sterling observed. "They overcame their [gender] gap in their profession, and he was supportive in helping us also achieve this goal. He will do whatever he can do to help get us to the point where Council can represent women at a proportion to the wider society."

"[The matrix] is about helping to get a balanced Council, and it's something that we've been working towards," Chau told *Engineering Dimensions*. "Once you have the elections, the public appointments process can look at it and see where the gaps are." However, Chau reiterated that the Skills and Attributes Matrix is designed only to help the attorney general make more informed choices: "We have no say on the who. We recommend the types of attributes we want—like candidates with a financial or legal background. That's as far as we go. We don't try to influence. All we do is help to make sure we have a balanced Council." According to Chau, Downey recognized the usefulness of the matrix and agreed to work towards selecting LGAs to help produce a balanced Council.

AG UPDATED ON PEO's PEAK PROGRAM

President Sterling also spoke with Downey about PEO's Practice Evaluation and Knowledge (PEAK) program, a voluntary program that allows PEO to measure how practising licence holders conduct practice activities and whether they pursue continuing education related to their engineering careers. Members also complete an ethics module. The successful completion of PEAK is recorded on the public directory of PEO members. Despite its voluntary status, Sterling informed Downey that PEAK is becoming a more ingrained element of PEO's operation, noting Council's June 2019 decision to make PEAK permanent (see "Voluntary PEAK program operationalized," *Engineering Dimensions*, March/April 2020, p. 17) and Council's September 2019 decision to direct CEO/Registrar Zuccon to review PEAK and to propose to the attorney general the legislative framework needed to make PEAK mandatory. However, the power to approve legislative changes to the PEA ultimately rests with the provincial legislature. Zuccon reiterated that Downey is supportive of an evolution of PEAK to a mandatory program.

DOWNEY REMAINS SUPPORTIVE OF PEO's REGULATORY ROLE

Sterling noted that the meeting ended on a high note, with Downey stating that he remains confident in PEO's ability to regulate the engineering profession. "The attorney general extended the trust to PEO and Council that we are self-regulating in the public interest and that he trusts us to do that," Sterling observed. "He is interested in what PEO and Council are doing but does not have any intentions of intervening with our self-regulating role. His leadership is one of having confidence in our ability to deliver our responsibilities to him."

PEO GOVERNMENT RELATIONS CONFERENCE TAKES PLACE ONLINE

By Adam Sidsworth

The biannual Government Relations Conference took place virtually on meeting platform Zoom on November 6, 2020, to accommodate the safety measures that have become a reality in 2020 as a result of COVID-19. The conference, with the theme "PEO and MPPs regulating engineering in the new environment," featured messages from party leaders represented in the provincial legislature as well as keynote speakers from British Columbia's engineering regulator and Canada's first female engineer member of parliament (MP).

STRENGTHENING RELATIONSHIPS

PEO President Marisa Sterling, P.Eng., FEC, opened the conference, noting to delegates that PEO's Government Relations Committee was formed in 2005 in response to legislation passed by the Ministry of Municipal Affairs and Housing that was subsequently found by the courts to be infringing on PEO's jurisdiction (see "PEO's relationship with government a two-way street," *Engineering Dimensions*, May/June 2016, p. 26). "You will hear the results of [their] positive work in today's conference," Sterling said. "In the past two years, PEO has been looking internally at its organization, starting at the modern and digital world around us to see how we can reimagine PEO together and to see how we can govern in the public interest. Meeting with MPPs (members of provincial parliament) and knowing their priorities will help…." Sterling noted as an example her recent meeting with Attorney General Doug Downey as developing good relationships with the government (see p. 9).

THE ADVANTAGES OF SELF-REGULATION

Jeannette Chau, P.Eng., PEO's manager, government liaison programs, and Howard Brown, PEO's government relations consultant, briefly explained the origins of PEO's Government Liaison Program (GLP). Chau and Brown noted PEO's need to communicate with government representatives during major events over the past 15 years, such the 2005 government attempt to revamp the Ontario Building Code, PEO's participation in a government commission that investigated a collapsed mall roof in Elliot Lake, ON, and the province's decision in 2015 to maintain the industrial exception. Brown emphasized that during the 2018 provincial election, 72 newly elected MPPs needed to be educated on PEO's role as the engineering regulator.

The remainder of the morning was devoted to a discussion on the benefits and importance of engineering self-regulation in Ontario and Canada, with a roundtable discussion involving Ann English, P.Eng. (BC), FEC, CEO/registrar of Engineers and Geoscientists BC; Dan Abrahams, LLB, senior legal counsel for PEO; and Shenda Tanchak, LLB, principal consultant of Magnetic North. Tanchak specializes in governance reviews and change management and was previously CEO/registrar of the College of Physiotherapists of Ontario. The discussion was moderated by President Sterling, who noted that self-governing is "a privilege that engineers and other self-regulating professionals have in Canada." English stated that self-regulation leads to more informed decisions, since information comes from practitioners who "interact daily and know the issues," with Abrahams agreeing that self-regulation harnesses not only self-expertise but also independence. Abrahams, who worked previously for the Law Society of Ontario (LSO), noted that independence is more relevant for the legal profession, since LSO members can find themselves having to challenge governments in court. However, Abrahams, citing urban theorist Jane Jacobs, stated that self-regulation, if done badly, can lead to a lack of trust in the profession "to behave in a rational, ethical way." Tanchak, however, took it further, adding that self-regulated professions often hold the highest prestige in society, often coming from higher training, but that a downfall is that "if one profession messes up, it makes all self-regulated professions look bad." At the end of the panel discussion, English added, "I've heard the term 'co-regulation' (meaning the regulator and government regulate together), and I'm not sure that [BC] would agree with that at all," citing her province's government oversight body that oversees many BC regulators. "We partner with governments," English observed, adding that the regulator must meet certain government metrics. "It's very clear we are regulated by them." However, Tanchak noted that self-regulated professions can often implement changes quicker than government can.

After the table discussion, English was interviewed by PEO West Central Region Councillor Warren Turnbull, P.Eng., FEC, during which English compared EGBC's government relations program to that of PEO. "Our program is a little different," English explained. "We target the working level. We partner with the government. They come to us and ask if we will lead projects that are strongly related to regulation," such as guidelines, investigations and recommendations. EGBC also builds relationships at the senior government level with elected members of BC's legislature. Notably, EGBC has caucus receptions with political parties. "You must stay in touch with all three parties," English noted.

INTERVIEW WITH AN ENGINEER MP AND PROVINCIAL MINISTER

The afternoon session began with an interview with Marilyn Gladu, P.Eng., FEC, MP for Sarnia-Lambton. The first woman engineer elected to the House of Commons, Gladu ran for the Conservative leadership earlier this year but was ultimately unsuccessful (see "Ontario P.Eng. runs for Conservative party leadership," *Engineering Dimensions*, May/June 2020, p. 13). Speaking with PEO Vice President (elected) Darla Campbell, P.Eng., Gladu said that transitioning from engineer to politician was tough: "For my first three weeks as a politician, I cried and cried and cried," she admitted, noting the strong comments that politicians are subjected to, particularly on social media. "And I worked in construction!" Politicians, she noted, learn to toughen up. But on giving advice to PEO members looking to engage with MPPs, Gladu noted that:

- MPPs likely work long hours;
- PEO members should book an appointment to see their MPP;
- MPPs may not know what PEO is, so it is important to articulate a concise, focused message;
- Your MPP would benefit from being given a one-page brief of your meeting; and
- An MPP would likely welcome the opportunity to raise a petition in the legislature, since it is an ability to gain attention while advocating on behalf of many people.

Later in the afternoon, Steve Clark, provincial minister of municipal affairs and housing and MPP for Leeds-Grenville-Thousand Islands and Rideau Lakes, addressed attendees during a 15-minute interview. Acknowledging the COVID-19 pandemic, Clark admitted: "It's important to have relationships with engineers. It's important to have relationships with the regulator so that you can get things moving at lightning speed. You can't circumvent health and safety, and you need to have those voices involved. When our government talks about cutting red tape, it's not about to try to get around health and safety. We want professional voices at the table." Minister Clark committed himself to working with PEO, particularly in enforcement, to make sure only licensed and qualified professional engineers are practising professional engineering in Ontario.

MPPs ADDRESS CONFERENCE ATTENDEES

There was no shortage of provincial politicians who addressed the conference. Because of the online nature of the conference, most provided a prerecorded message. In addition to Gladu and Clark, participating politicians included:

- Gurratan Singh, New Democratic Party (NDP) MPP for Brampton East and critic for the attorney general;
- Andrea Horwath, NDP MPP for Hamilton Centre, critic, intergovernmental affairs and NDP leader;
- Jennifer French, NDP MPP for Oshawa, third deputy chair of the committee of the whole house and critic for infrastructure, transportation and highways;
- Steven Del Duca, Liberal leader;
- Lucille Collard, Liberal MPP for Ottawa-Vanier, member, standing committee on justice policy and critic for the attorney general;
- Mike Schreiner, Green MPP for Guelph and Green Party leader; and
- Will Bourma, Conservative MPP for Brantford-Brant and parliamentary assistant to the premier.

CHAPTER LEADERS GATHER FOR ONLINE CONFERENCE ABOUT CHANGE

By Adam Sidsworth

In a nod to PEO evolving its regulatory focus and governance structure, the regulator's chapter leaders gathered virtually for a conference focused on change.

PEO's annual Chapters Leaders Conference took place on Zoom on November 21, 2020, just as some parts of Ontario were preparing to enter a modified lockdown after witnessing soaring rates of COVID-19. The uncertainty over the health and accompanying economic ramifications of the pandemic added an additional layer of macabre to the conference, which was themed "~~Change Management~~ Transformation of PEO."

The Chapters Leaders Conference is an annual PEO event, normally held each November, during which executives and other leaders from PEO's 36 chapters meet to learn about the latest PEO news and to develop their leadership skills. Chapters encourage professional engineers to participate in PEO activities at the community level, facilitate two-way communication between PEO and members and recognize individuals and organizations for their support to professional engineering in Ontario. This year's conference focused on changes for the provincial engineering regulator and consisted of a morning session by an internationally recognized change management specialist Mark DeVolder and an afternoon session led by PEO President Marisa Sterling, P.Eng., FEC.

A screenshot of the Chapter Leaders Conference taken while Marisa Sterling, P.Eng., FEC, addressed attendees about the changes PEO is currently undergoing.

A LESSON IN CHANGE

The morning session was led by DeVolder, who has helped companies valued in the billions of dollars—including McDonald's, Coca-Cola and Qatar Petroleum—respond nimbly and quickly to change. DeVolder has also advised the National Aeronautics and Space Administration as it ended its space shuttle program and advised other large organizations that have traditionally employed large numbers of engineers, such as Spartan Controls, General Electric and Siemens.

"How do we adapt better to change?" DeVolder asked the online audience. "If you think change is happening fast right now, guess what? Tomorrow it's going to happen even faster." DeVolder noted that when facing change, people often experience feelings of volatility, uncertainty, complexity and ambiguity. In one exercise, DeVolder challenged attendees to turn on their Zoom cameras and react positively or negatively to certain songs, including songs by the Rolling Stones and the Village People. "Did you notice," DeVolder asked, "that while you were loving one of those songs, right next to you… someone was going, 'What?' If we have that kind of diversity of response to just music, imagine what is going to happen when there is a transformation in structure. You will definitely have many different reactions to change."

He noted that people's approaches to change fit into three common strategies: They are either the first to step forward, resistant to change some of the time or don't adapt to change at all. "Everybody asks, 'What's in it for me?'" DeVolder asserted, adding that there are three stages to transformation:

- Separation (the shock of something ending and of things not being what they used to be);
- Limbo (everything is on hold; this is where the majority of the transition and the real work happens); and
- The new reality (where the implementation happens; much less work happens here).

Transitions never happens quickly, DeVolder noted, but changes do. DeVolder defines transitions as a series of changes. And even when a change is planned, there is still crisis, DeVolder observed, because we must adapt for it. In the initial separation stage, the work is to accept and let go. "It's what we have to do individually, and it's what we have to do organizationally," DeVolder asserted. "It sounds easy, but it's not easy to accept and let go. Accept doesn't mean that you have to like it. Accept means that you accept that it's happening. And then we have to let go of the past."

DeVolder urged people to ask three questions:

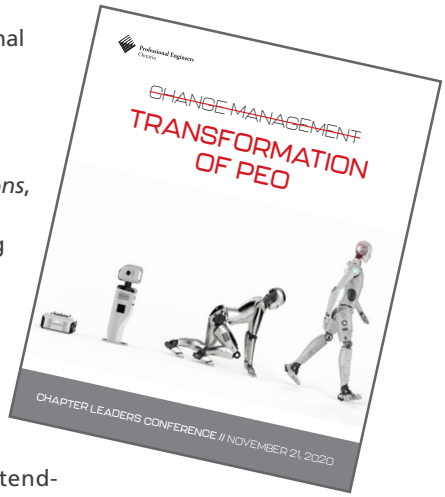
- What is the change?
- What will be different? and
- Who's losing what?

By asking these questions, it makes it easier to transition to the secondary limbo stage, where the majority of the work occurs. The limbo stage is the trial-and-error stage, where learning is adapting, and adapting is learning. The best leaders, according to DeVolder, are those who think differently. They learn a new mindset after accepting that they can't go back. It is about having a growth mindset ("I'm successful because of my attitude and effort") as opposed to a fixed mindset ("I'm successful because of my intelligence"). A growth mindset makes it easier to transition to the new reality, where there is no going back. In this stage, the best leaders walk through the door first. DeVolder challenged attendees to ask themselves: "What will you do? Will you walk through the door?"

AN OVERVIEW OF PEO's TRANSITION

During the afternoon session, President Sterling spoke about the transitional changes that PEO has been undergoing since 2019. Specifically, Sterling updated the delegates on:

- The operational review, which is vetting PEO's 93 committees, subcommittees and working groups into regulatory, governance or neither categories (see CEO/Registrar's Report, *Engineering Dimensions*, November/December 2020, p. 8);
- The two-year enhanced governance review PEO is currently undergoing (see p. 40)
- PEO's engagement of external consultants to measure its current structure's ability to adapt to the ongoing operational and governance reviews (see CEO/Registrar's Report, *Engineering Dimensions*, January/February 2020, p. 7); and
- A reimagined vision for PEO.



"PEO is undergoing a significant transformation," Sterling told attendees, noting that the governance review will most likely touch on the role of chapters within PEO. "We all recognize the importance of dialogue and that in order to have good governance, we need to facilitate communication and collectively come up with the solution together. The chapters, chapter volunteers and all other volunteers of PEO need to be involved in this work. And we will ensure that we will consult with chapter leaders such as yourselves to really gain an understanding of current practices and pros and cons."

Reflecting on the lessons learned about transformation during the day's conference, Sterling observed: "It's really important that we start to allow ourselves to stretch our minds and think a little bit differently about what we can become because we now have a collective opportunity to do this within the chapter system. Things may change, things may stay the same…there is renewal and change. We know why we're doing this, why we have to stay on this path of transformation, but how we do that is so critical. And that's why ensuring change at the chapter level is carried out in a spirit of trust, with open communication. PEO values the input of its chapters and its leaders and volunteers."

QUEEN'S UNIVERSITY NAMES INAUGURAL CHAIR FOR WOMEN IN ENGINEERING

By Adam Sidsworth

Heidi Ploeg, PhD, P.Eng., has been named the inaugural chair for women in engineering at Queen's University in Kingston, ON, where Ploeg will explore ways to encourage women to consider entering the engineering profession.

In its continuing quest to increase diversity in engineering in the Kingston, ON, area, Queen's University's faculty of engineering and applied science (Queen's Engineering) has named one of its own professors as the inaugural chair for women in engineering.

Heidi Ploeg, PhD, P.Eng., associate professor of mechanical and materials engineering, has been named to the position to develop and deliver new curricula at Queen's Engineering that is more inclusive to women. In addition, Ploeg will lead development of outreach and support programs that will encourage women and girls to pursue education and careers in engineering fields. The endowed chair, with five-year renewable appointments, is made possible by an anonymous $3 million donation by Queen's Engineering alumni who, according to a Queen's University press release, are "passionate about ensuring that more women become leaders in engineering education and practice."

"It's a big difference," Ploeg admits of the large donation. "It's a perpetual position. It's endowed, meaning the donation will fund the chair in perpetuity. It didn't start off at that level, but as we were creating the chair, [the donors] came back to us and increased it to the level that it is now. I'm really thankful to the donors for making this possible."

Ploeg notes that because the chair for women in engineering role encompasses an outreach program, it will collaborate with other outreach programs that Queen's Engineering already runs, such as Connections Engineering Outreach, which operates various in-school, girls and summer programs for children in kindergarten to Grade 12 in the Kingston area; and Actua and GoEngGirl, two nationally affiliated outreach programs with which Queen's partners. In addition to creating new curicula that is more inclusive, the chair will also support the faculty's already-existing MECH 333 gender, engineering and technology course, which was developed by Geneviève Dumas, PhD, P.Eng., professor emeritus of mechanical and materials engineering, to explore, among other things, the gendering of technology and its role in society.

"It means supporting undergraduate research, graduate research and providing opportunities like travel funding for students to present their research on the international stage," Ploeg says, "especially in engineering. We've been weak with [the number of] women faculty, and that's a big issue we're working hard on improving. But there's already been an improvement." She estimates that 40 per cent of Queen's Engineering assistant professors are women.

CHAIR RECEIVES WIDE SUPPORT

Ploeg is looking forward to delivering the program and has already begun meeting with other members of the Queen's community to develop a roadmap to deliver the chair's objectives. Ploeg has received offers of support from both internal and external stakeholders, including the Canadian Centre for Women in Science, Engineering, Trades and Technology Centre; Ontario Network of Women in Engineering; the Ontario Society of Professional Engineers and Engineers Canada. Both Ploeg and Queen's 30 by 30 champion Marianna Kontopoulou, PhD, P.Eng., professor of chemical engineering and associate dean (academic), participate in the Engineers Canada–led 30 by 30 initiative, which is run in collaboration with Canada's 12 provincial and territorial regulators to raise the percentage of all newly licensed women engineers in the country to 30 per cent by 2030.

WOMEN IN ENGINEERING FOLLOWS DATA

Ploeg is adamant that increasing the number of women in engineering needs to be data driven in order to achieve success. "The way forward is looking at the data and targeting our efforts that's informed by data," Ploeg says, "so we know the efforts that are working and what needs to change." But importantly, Ploeg is committed to a culture change at Queen's: "It's not just about getting a more diverse engineering first-year [class] but maintaining them throughout the program and demonstrating to them that they belong in the program. And that involves a culture change." And Ploeg is ready for change, noting her frustration of the engineering profession's slow-moving progress towards gender parity, particularly compared to other regulated professions, like law and medicine. "It seems like we haven't moved the dial at all," she says. "Our initiative is going to make a lasting change."

COMMITTEE CHAIRS WORKSHOP FOCUSES ON SELF-CARE AND POLARITIES

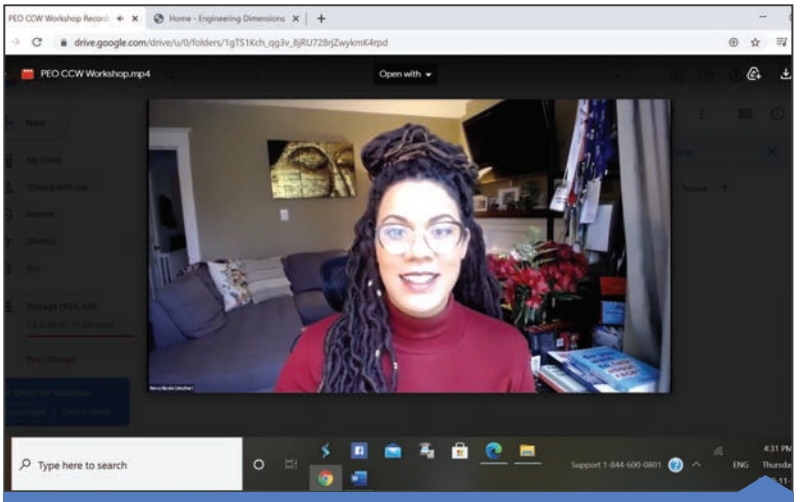
By Adam Sidsworth

PEO's 2020 Committee Chairs Workshop focused on increasing self-care in the time of COVID-19 and the introduction of polarity as a tool to increase discussion at PEO as it continues its governance renewal and activity filter, which stems from a 2019 external review of PEO's regulatory performance.

The Committee Chairs Workshop is a yearly opportunity for committee chairs, PEO councillors and staff to participate in workshops to increase their understanding of their responsibilities as leaders within PEO's organization. The event is normally held at PEO's Toronto, ON, headquarters; however, the October 30 event was held virtually on Zoom because of the ongoing COVID-19 pandemic.

This year's workshop, with the theme "Staying healthy while navigating realities," was designed to help attendees focus on both their mental health within the context of a global pandemic and changes currently underway at PEO. The event was attended by approximately 55 people, who were welcomed by PEO President Marisa Sterling, P.Eng., FEC, and CEO/Registrar Johnny Zuccon, P.Eng., FEC, both of whom framed the workshop not only within the context of PEO's ongoing governance renewal—which is anticipated to refocus the function and scope of PEO Council (see "PEO reveals two-year Governance Roadmap workplan," *Engineering Dimensions*, November/December 2020, p. 10)—but also from the 2019 external review of PEO's performance as Ontario's engineering regulator, which included recommendations to examine the role of PEO committees, subcommittees and working groups within PEO's regulatory mandate. PEO's resulting activity filter, designed to review its 93 committee activities, had reached its third phase by the time the Committee Chairs Workshop was held. The third phase involved PEO staff assessing all committee activities into four categories: core regulatory, regulatory policy, governance or neither (see CEO/Registrar's Report, *Engineering Dimensions*, November/December 2020, p. 8).

"Although many of us are getting exhausted by the COVID situation," Sterling said, "we know from that we have to find safe ways to take care of ourselves, whether it's reaching out to friends or family or exercising in safe ways." Sterling acknowledged that she, too, shared many of the same challenges as other people, particularly her need to balance her day job at the University of Toronto and her PEO presidency within a COVID-19 world in which PEO was still forging ahead with changes.



Nova Nicole leads a morning session on social and emotional intelligence in a virtual workplace during the Committee Chairs Workshop.

A FOCUS ON MENTAL HEALTH

The morning session focused on mental health, as attendees participated in a session and breakout activity entitled "Personal energy management," led by Nova Nicole. Nicole is a mental health speaker with an emphasis on social and emotional intelligence. She is a leadership development facilitator at Shopify, a program facilitator with Mindfulness Without Borders, has appeared on CTV's *The Social* and has been profiled by *The Globe and Mail*, *The Walrus*, *Chatelaine*, CBC and CTV. Citing a World Health Organization study stating that depression and anxiety disorders cost the global economy US $1 trillion in lost productivity and that presenteeism (showing up to work sick) costs Canada over seven times more than absenteeism, Nicole challenged attendees to find new approaches and setting tones in the two-dimensional work environment ushered in by Zoom.

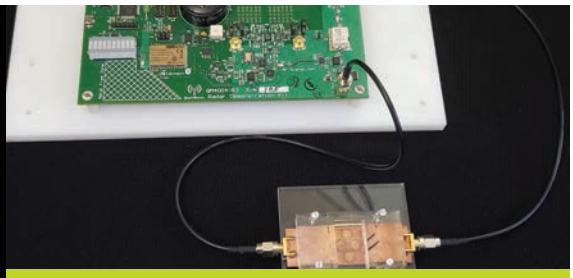
"When I speak with leaders in industry," Nicole said, "they tell me that they are dealing with grief." Nova noted that as fall turns to winter and the days became shorter, Nicole predicted that seasonal affective disorder would be compounded by this year's dependence on Zoom and other online platforms. It is a two-dimensional space, Nicole said, that people are not hardwired to navigate, creating a lack of situational awareness

in social situations. This lack of situational awareness compounded by computer cameras—even if your Zoom camera is turned off, you are still viewable as a black screen—is forcing us to start conversations differently. "Take a beat when someone asks, 'How are you today?'…'I'm doing fine'" because, according to Nicole, "the higher [in the pitch] of 'I'm fine,' the greater the fall." Nicole encourages people to open conversations with different strategies: "Read the room. Do you have the capacity to have a conversation today? Check in with yourself. 'Can I chat another day?' In this climate, it's okay to say this." Nicole said to notice your body and notice signs of physical stress, such as body pains and stomach cramps. Attendees broke into breakout rooms, where they completed two sentences: "When I'm starting to get stressed out, I…" and "I never feel worse after I…" Breakout groups completed the first sentence with words like "I have that scattered brain," "I get hungry" and "I get irritable" and finished the second sentence with words like "go for a walk," "cook," "write" and "listen to music."

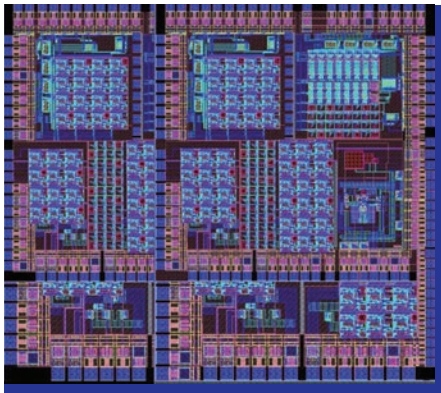
THE CONCEPT OF POLARITY

The afternoon session was led by Mark Abbott, P.Eng., of Engineering Change Lab, which has a mission to bring leaders from across the Canadian engineering community together. Abbott has previously presented at PEO conferences and workshops, notably the 2019 Volunteer Leadership Conference during PEO's annual general meeting weekend (see "PEO volunteers learn about the changing role of leadership," *Engineering Dimensions*, July/August 2019, p. 11). Abbott introduced to attendees of the Committee Chairs Workshop the notion of polarity, which is derived from a concept in chemistry. "Polarity is a pair of values that seem to be in opposition to each other but are actually interdependent because we need both values over time to be successful," explained Abbott, who cited as examples serving and leading, freedom and equality, activity and rest and assertive and co-operative. Abbott challenged attendees to find such polarities in themselves, such as intuitive versus data driven or visionary versus grounded. Attendees broke into workshops to explore how polarities can be used to help attendees build PEO's vision capacity to navigate organizational value tensions and to demonstrate the necessities to address value tensions as leaders within organizations. Attendees broke into groups, where they created polarity maps in four areas: stability and change, lived experience and specialist expertise, depth and breadth and organizational health and organizational impact. One breakout session that focused on stability and change, for example, noted that stability has established practices and corporate memory but encourages complacency and disengagement, while change creates innovation and an outward-looking mindset but forces people outside their comfort zone and brings with it a loss of stability. However, attendees noted the usefulness of polarities in helping them look at the bigger picture.

BITS & PIECES



Researchers at the University of Waterloo faculty of engineering have developed a non-invasive diabetes device that monitors blood sugar using radar and artificial intelligence instead of painful skin pricks. The palm-sized device works by sending radio waves through the skin and into blood vessels when users place the tip of their finger on a touchpad, revealing their blood sugar status within seconds. Photo: University of Waterloo Engineering



Mechatronics engineering is an interdisciplinary engineering field that involves the design of computer-controlled electromechanical systems. It is sometimes thought of as a spin on mechanical engineering design and includes aspects of electrical, computer and mechanical engineering. Mechatronics engineers create a wide range of products from medical devices to automobiles and robotics and play crucial roles in manufacturing and automation.
Photo: Angeloleithold

OPEA CALL FOR NOMINATIONS

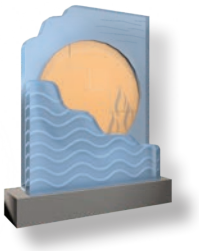
NOMINATIONS ARE BEING ACCEPTED FOR THE 2021 ONTARIO PROFESSIONAL ENGINEERS AWARDS (OPEAs).

Now in their 74th year, the OPEAs showcase Ontario professional engineers who have made outstanding contributions to their profession and community or led a successful engineering project. A black-tie gala is tentatively scheduled for November (depending on the public health situation) to honour the 2021 recipients, an event hosted jointly by PEO and the Ontario Society of Professional Engineers.

New in 2021: Only one nominator and two referees are now required for individual OPEA categories.

For the OPEA Citizenship Award, the Awards Committee now recognizes noteworthy support and advancement of equity, diversity and inclusion in the profession and promoting or supporting equity, diversity and inclusion within society.

• THE AWARDS •

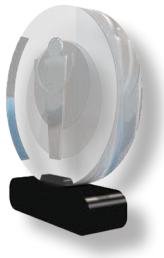


GOLD MEDAL

The premier award, the Gold Medal recognizes commitment to public service, technical excellence and outstanding professional leadership.

AWARD FOR ENGINEERING PROJECT OR ACHIEVEMENT

This award recognizes a team of engineers who have conceived of, designed and executed an outstanding project or achievement that has had a significant, positive impact on society, industry or engineering. *See page 37 for more information.



CITIZENSHIP AWARD

Those who earn this award have given freely of their time, professional experience and engineering expertise—to the benefit of humanity.

THE DEADLINE

Nominations are due by 4 p.m. EST on **Wednesday, February 24, 2021.**

ELIGIBILITY

More information about the awards, including selection criteria and nomination forms, is available at **www.peo.on.ca**, or by email at **awards@peo.on.ca.**

ENGINEERING MEDAL

The Engineering Medal recognizes professional engineers who have improved our quality of life through the ingenious application of their engineering skills and whose achievements rise significantly above the normally high standards of the profession. It can be awarded in the categories of:

Engineering Excellence

Recognizes overall excellence in the practice of engineering, where the innovative application of engineering knowledge and principles has solved a unique problem, led to advanced products or produced exceptional results

Management

Awarded for managing and directing engineering projects or enterprises where innovative management practice has contributed significantly to the overall excellence of the engineering achievement

Research and Development

Awarded for using new knowledge in developing useful, novel applications, advancing engineering knowledge or applied science or discovering or extending any of the engineering or natural sciences

Entrepreneurship

Awarded for applying new technologies or innovative approaches that have enabled new companies to get started and/or assisted established companies to grow in new directions

Young Engineer

Awarded to outstanding young Ontario engineers who have made exceptional achievements in their chosen fields. Candidates must be no older than 35 as of December 31 in the year the nomination is submitted and have demonstrated excellence in their careers as well as in community and professional participation

2021 ONTARIO EVENT HIGHLIGHTS

Every March, the provincial and territorial engineering regulators across the country join Engineers Canada to organize events for National Engineering Month (NEM). In past years, volunteers from PEO's 36 chapters have helped raise awareness for the engineering profession by showcasing the many disciplines to the larger community. And 2021 will be no different.

In these times of great adaptation, nothing is as powerful as practising how to learn and expanding our perspectives as a community. This year NEM organizers are excited to deepen the impact of NEM events by focusing on the theme of lifelong learning, defined by the European Commission as "all purposeful learning activity undertaken throughout life with the aim of improving knowledge, skills and competencies within a personal, civic, social and/or employment related perspective."

Each week of NEM 2021 will be curated thematically with Engineers Canada to provide a synched-up NEM. Week 1 will cover working with interdisciplinary professions. Week 2 will focus on equity, diversity and inclusion. The College and University Challenge will take the spotlight in Week 3. In Week 4, the discussion will be on ethics, engineering's impact on society, resilience, wicked problems and the future. And in Week 5, regulators from across the province will come together and share professional development offerings.

Due to the COVID-19 pandemic, all NEM 2021 Ontario events will be happening online via the NEM Ontario Zoom account. Whether participants attend a panel discussion, workshop with skill-building components or networking event, the goal is to have all attendees come away with new or deepened knowledge, skills or values that bring them together, benefit their communities or contribute to employability in engineering fields.

To get you excited for NEM 2021, we're sharing a partial list of the many events that PEO chapter volunteers have organized, some in partnership with the Ontario Association of Certified Engineering Technicians and Technologists (OACETT), Ontario Society of Professional Engineers (OSPE) or Institute of Electrical and Electronics Engineers (IEEE). If you have never attended an NEM event before, why not embrace lifelong learning and attend as many events as possible? Visit nemontario.ca for event updates and to sign up to attend a virtual event.

PEO ALGONQUIN CHAPTER

March 24

This event will feature past, present and future video of the nuclear industry in Deep River. Following the video will be a live discussion with industry professionals and elders in the nuclear industry.

PEO EAST TORONTO CHAPTER

March 26

Youth are invited to a virtual seminar focused on science, technology, engineering and math (STEM) topics designed to inspire them to pursue engineering.

PEO GRAND RIVER CHAPTER

March 17

This workshop for high-school students considering engineering will feature real-life stories about what engineers do and what it's like to be an engineering student.

PEO KINGSTON CHAPTER

March 25

PEO members will review student engineering research papers and judge their presentations. Student pairs are encouraged to submit papers and present their innovative engineering research topics virtually in front of a judging panel.

PEO LAKE ONTARIO CHAPTER AND OACETT DURHAM CHAPTER

March 27

Local students will leverage their creativity and test engineering skills by building the strongest popsicle-stick bridge. They will learn about the scientific method, engineering principles, testing hypotheses, collecting data, making informed decisions and more.

March 6
This virtual Mathletics competition will create a passion for the application of mathematics in solving engineering-related problems and promote the engineering profession among Grades 6, 7 and 8 students.

PEO LONDON CHAPTER

Date to be confirmed
This will be a virtual activity for students in kindergarten to Grade 4, allowing students to work on an activity together using materials found at home or a kit they can pick up at the London's Children Museum.

PEO LONDON CHAPTER AND OSPE

March 4, 11, 18 and 25
Technology Visit Program will offer virtual visits of various technology businesses in London and the area to allow students, professionals and the public to learn, network and link with local companies, their products and services through online platform Zoom.

PEO OAKVILLE CHAPTER

March 6
This interactive networking event with university engineering students and PEO members will focus on how to give and get constructive feedback. Engineers will talk about essential skills and make time for practice and reflection.

March 18
This panel discussion will involve students presenting their capstone projects to industry experts and they will be offered constructive feedback to take their learning and practice to the next level.

PETERBOROUGH CHAPTER OF PEO, OACETT AND IEEE

March 23
Students will join a design competition where they'll build a duct tape contraption meant to protect an egg dropped from a second-storey height. Volunteers will lead this hilarious adventure virtually and winners will be declared.

PEO QUINTE CHAPTER

March 26
This famous interactive bridge-building contest with Quinte junior and intermediate schools involves students testing their bridges with local experts. A lively discussion about the technical aspects of bridge-building will follow with students, teachers and parents.

PEO SCARBOROUGH CHAPTER

March 27
A celebratory seminar will showcase the creative projects of aspiring engineers from Grades 3 to 8 with an interactive discussion between established engineers, students and teachers.

PEO SIMCOE MUSKOKA AND OACETT GEORGIAN BAY CHAPTER

March 22
This will be a virtual activity for students where they work on an activity together using materials found at home or a kit they can pick up at the library. Volunteers will assist in the activity and give a presentation about why engineering is fun.

PEO WILLOWDALE/THORNHILL CHAPTER

March 6
Online Mathletics is a competition designed to create a passion for the application of mathematics in solving day-to-day scientific and engineering problems. Students will be challenged to be active and creative in the use of mathematics.

PEO WINDSOR-ESSEX CHAPTER

March 16
This student competition will involve teams investigating a product's end-of-life process and proposing solutions to reduce the environmental impact by either reusing or recycling and suggesting how to improve the design to make it more circular.

PEO YORK CHAPTER

March 5
This presentation and celebration of final projects from the Grade 7 and 8 student Engineering Design Challenge will feature students, teachers and parents from York District School Board.

DECISION AND REASONS

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990, c. P.28; and in the matter of a complaint regarding the conduct of DOMINECO CUGLIARI, P.ENG., a member of the Association of Professional Engineers of Ontario, and 10948411 CANADA INC. (formerly CONSTRUCTION CONTROL INC.)

The panel of the Discipline Committee heard this matter on November 16, 2020, by means of an online video conference platform that was simultaneously broadcast in a publicly accessible format over the internet. All participants in the proceedings, including counsel for the Association of Professional Engineers of Ontario (the association or PEO) and the former member, Mr. Domineco Cugliari (the member or Cugliari), and his legal counsel, attended via videoconference. The panel notes that although Cugliari is described as "P.Eng." in the title of proceedings, Cugliari's licence was cancelled due to voluntary resignation on July 13, 2018. He remains subject to the jurisdiction of the association in respect of any professional misconduct referable to a time when he was a member pursuant to s. 22.1(1) of the *Professional Engineers Act*, R.S.O. 1990, c. P.28 (the act). He is referred to herein as the "member" (or Cugliari) for convenience.

PRELIMINARY MATTER—CONSTRUCTION CONTROL INC. / 10948411 CANADA INC.

At the outset of the hearing, counsel for PEO advised that the name Construction Control Inc., which had initially been named as a respondent on the Notice of Hearing, should be replaced by the name of its legal successor corporation, 10948411 Canada Inc. Further, counsel advised that 10948411 Canada Inc. had since declared bankruptcy and was not represented at the hearing; however, counsel confirmed that the corporation had been properly served with notice of the hearing.

For ease of reference, the respondent 10948411 Canada Inc. will be referred to as "Construction Control" throughout these reasons.

THE ALLEGATIONS

The panel was provided with the original Statement of Allegations dated August 1, 2019, against the member and Construction Control, that were referred to the Discipline Committee for determination. The parties also provided the panel with an Agreed Statement of Facts, discussed below.

Counsel for the association explained that, to the extent that the original Statement of Allegations contained additional allegations as compared with the facts agreed on in the Agreed Statement of Facts, such additional allegations were withdrawn by the association.

AGREED STATEMENT OF FACTS

Counsel for the association advised the panel that the association and the member had reached agreement on the facts. She introduced an Agreed Statement of Facts signed by the member on November 10, 2020, and by the association on November 11, 2020. The Agreed Statement of Facts provided as follows, with references to the schedules that were attached, omitted below:

1. At all material times, Cugliari was a professional engineer licensed pursuant to the act. Cugliari was employed by the respondent, Construction Control Inc. (Construction Control), as a structural engineer focusing on temporary structures. Cugliari was listed on the certificate of authorization issued to Construction Control at the material time as a responsible engineer for the purposes of s. 17 of the act.

2. At all material times, Construction Control held a certificate of authorization (No. 100183928). On March 31, 2013, Construction Control relinquished its certificate, and it was cancelled effective April 3, 2013. On September 6, 2018, 10948411 Canada Inc. (formerly Construction Control) was declared bankrupt under the *Bankruptcy and Insolvency Act*, R.S. 1985, c. B-3, s.1.

3. Construction Control was the successor firm to Stanford Cody Ltd., whose employee George Snowden, P.Eng., had, in the 1992–1994 period, designed the component parts of a large performance stage (the Stage) owned and maintained by Optex Staging & Services Inc. (Optex).

4. On May 13, 2012, Optex emailed Cugliari concept drawings of a 138-foot-wide by 60-foot-high iteration of the Stage to be assembled for a June 2012 concert in Downsview Park (the Downsview Park Stage). The email from Optex stated, "I will need this engineered—please check brace and how much weight

I need. Fully tarped and scrimmed. Will go with the other drawings with roof specs."

5. On June 5, 2012, Optex sent Cugliari three emails, attaching additional concept drawings of the Downsview Park Stage and referring to the significant weight of the equipment intended to be hung from the roof. One of the emails stated that Optex needed the drawings "analyzed prior to the June 11th install."

6. On June 7, 2012, Optex emailed Cugliari stating that it needed "the Engineering" for the Downsview Park Stage by the end of the next day.

7. On June 8, 2012, Construction Control emailed Optex seven drawings, listed as: S12-4139- 02; 01-7570-01-R1; 94-5654-01; 94-5654-02; 94-5654-03; 94-5654-04; and S12-4139-01 (the Stage Drawings). Stage Drawing 94-5654-01 was dated July 21,1992 and was signed and sealed by Snowden. Stage Drawing 94-5654-02 was dated April 28, 1994 and was signed and sealed by Snowden. The remaining Stage Drawings are dated either June 7, 2012, or June 8, 2012. Stage Drawings 94-5654-03, S12-4139-01 and S12-4139-02 were signed and sealed by Cugliari on June 8, 2012. Stage Drawings 01-7570-01-R1 and 94-5654-04, although noted as checked by Cugliari and approved for construction, were never signed or sealed.

8. The Downsview Park Stage was intended to be constructed utilizing two large scaffold wings. Each scaffold wing had three pick-up towers and each tower had two "pickup trusses." Each pair of pick-up trusses supported one "cathead beam." The Stage roof was assembled using two primary trusses with thirteen secondary trusses connected to the primary trusses. Three cables on each side ran from the primary trusses up to the pulleys of the cathead beams and 3 back down to the cathead bases on which the scaffold pick-up towers rested. The secondary trusses supported all the lighting equipment hanging above the floor of the stage.

9. Stage Drawings 94-5654-01 dated July 21,1992, and 01-7570-01-R1 dated June 8, 2012, both depicted the pickup truss details, among other things. The details depict a 10-foot-long pickup truss, even though the Stage configuration (as shown in Stage Drawings S12-4139-01 and S12-4139-02) required 7-foot-long pickup trusses.

10. The steel tube components of the pick-up trusses (top and bottom chords, as well as the diagonals) were to be 3 inches in diameter, with wall thickness of .21 inches. These are not typical sizes for commercially produced truss components and would have required custom fabricating. Stage Drawing 94-5654-01 contains fabrication details for the primary truss and for a 10-foot-long pickup truss. None of the Stage Drawings depicted details of the connections between the cathead beams and the pickup trusses. The only information provided regarding connections to the pick-up trusses was on Stage Drawings S-12-4139-01 and S-12-4139-02, which stated only, "Cathead Assembly T & C to Truss (see C.C.I. Dwg. No. 5-G-01-7570-01)."

11. The Stage Drawings also contained many other errors, omissions and discrepancies. These include primary truss and primary truss pickup point discrepancies, pulley beam/cathead beam discrepancies, omission of pulley beam connection details, scaffold bay size discrepancies, suspension cable connection detail omission and failure to adequately evaluate the entire structural system when altering one component. These errors, omissions and discrepancies are set out in greater detail in the expert report of Art Ivanchouk, PhD, P.Eng., dated July 23, 2019.

12. Despite the fact that Construction Control and Cugliari had utilized the same design details for the stages built by Optex for many years, the pickup trusses actually used by Optex were not the ones designed by Snowden and depicted in Stage Drawings 94-5654-01 and 01-7570-01-R1 and were, in fact, substantially structurally weaker. Cugliari was the structural engineer

responsible for the design and construction review of several stages built by Optex before it built the Downsview Park Stage. Cugliari at no time revised his drawings to account for the pickup trusses and other components used by Optex. Cugliari acknowledges that he ought to have noticed the discrepancies, and he should have taken appropriate steps to revise his design and drawings accordingly.

13. On or about June 15, 2012, Cugliari attended Downsview Park to conduct a general field review of the construction of the Downsview Park Stage. He did not take any steps to examine either the pickup trusses or their connection to the cathead beams. Had he done so, he would have seen that the pickup trusses actually used were not the ones depicted in the Stage Drawings and that the cathead beams were not properly connected to the pickup trusses.

14. On the morning of June 16, 2012, Cugliari sent Optex a signed and sealed "Field Review Report" dated June 15, 2012. It stated that "a review was carried out to verify structural adequacy of concert Stage as per design drawings 4-G-S12-4139-01 & 02." The Report stated, among other things, as follows:
"…

    3) Secondary trusses were further reinforced with additional diagonal, vertical and plan bracing members to accept additional lighting and motor loads—now satisfactory.

    4) Other items including primary truss and supports, scaffold wings c/w [complete with] bracing & weights at base, main stage deck and sills, were found to be structurally sound and satisfactory for intended use."

    Cugliari regrets that he issued the Field Review Report stating that the Stage was structurally sound and satisfactory for its intended use without ensuring that the proper pick-up trusses had been installed.

15. At approximately 4 p.m. on June 16, 2012, as the Downsview Park Stage was being prepared for a performance, the roof collapsed, killing one worker and injuring three others. The collapse originated at the location of one of the pickup trusses. The pickup trusses and their connections to the cathead beams were inadequate to support the loads imposed on them.

16. On July 13, 2018, Cugliari retired from his employer, resigned his licence as a professional engineer and returned his seal.

17. For the purposes of this proceeding, Cugliari accepts as correct the findings, opinions and conclusions contained in the Ivantchouk Report as redacted. Cugliari admits that he failed to meet the minimum acceptable standard for engineering work of this type and that he failed to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances.

18. By reason of the aforesaid, the parties agree that Cugliari is guilty of professional misconduct, as follows:
    a. Affirming the structural adequacy of a structure designed for public use without having a reasonable basis for doing so, amounting to professional misconduct as defined by sections 72(2)(a), and (b) of Regulation 941 under the *Professional Engineers Act*;

    b. Conducting an inadequate review of the construction of a temporary stage structure, amounting to professional misconduct as defined by sections 72(2)(a) and (b) of Regulation 941, and that his conduct would reasonably be regarded by the engineering profession as unprofessional, amounting to professional misconduct under section 72(2)(j) of Regulation 941; and

    c. Preparing, signing and sealing, or transmitting for use by the client, incomplete, inconsistent, incorrect or inadequate structural drawings of a temporary stage structure, amounting to professional misconduct as defined by section 72(2)(a) and (b) of Regulation 941, and that his conduct would reasonably be regarded by the engineering profession as unprofessional, amounting to professional misconduct under section 72(2)(j) of Regulation 941.

PLEA

Member

The member admitted the allegations set out in paragraph 18 (a) to (c) of the Agreed Statement of Facts. The panel conducted a plea inquiry and was satisfied that the member's admission was voluntary, informed and unequivocal.

Construction Control

As Construction Control was not present or represented at the hearing, the panel entered a plea of not guilty on its behalf.

DECISION

Member

The panel considered the Agreed Statement of Facts. It finds that the facts, as agreed, support findings of professional misconduct against the member. In particular, the panel finds that the member committed acts of professional misconduct as set out in paragraphs 18 (a) to (c), above.

Construction Control

The panel accepts that the facts, as established by the Agreed Statement of Facts, can be used to support findings of professional misconduct against Construction Control. In particular, the panel finds that Construction Control committed acts of professional misconduct as follows:

a. Affirming the structural adequacy of a structure designed for public use without having a reasonable basis for doing so, amounting to professional misconduct as defined by sections 72(2)(a), and (b) of Regulation 941 under the act;

b. Conducting an inadequate review of the construction of a temporary stage structure, amounting to professional misconduct as defined by sections 72(2)(a) and (b) of Regulation 941, and that its conduct would reasonably be regarded by the engineering profession as unprofessional, amounting to professional misconduct under section 72(2)(j) of Regulation 941; and

c. Preparing, signing and sealing or transmitting for use by the client, incomplete, inconsistent, incorrect or inadequate structural drawings of a temporary stage structure, amounting to professional misconduct as defined by section 72(2)(a) and (b) of Regulation 941, and that its conduct would reasonably be regarded by the engineering profession as unprofessional, amounting to professional misconduct under section 72(2)(j) of Regulation 941.

REASONS FOR DECISION

Member

When presented with a guilty plea and an Agreed Statement of Facts, the panel must still satisfy itself whether the facts presented support a finding with respect to each of the acts of professional misconduct alleged by the association.

In this case, the panel is of the view that the acts of professional misconduct alleged in paragraphs 18 (a) to (c) of the Agreed Statement of Facts were amply made out on the facts as agreed to by the member and the association and accepted by the panel.

The panel finds that the member prepared, signed and sealed and transmitted for use by his client structural drawings for a temporary stage that were clearly deficient and that he failed to meet the standard of a reasonable and prudent practitioner in numerous respects.

The panel notes that the structural drawings are patently inconsistent; for example, while the stage configuration illustrates 7-foot-long pickup trusses, details contained in related drawings depict a 10-foot-long pickup truss. Notably, these related drawings are specifically referenced in the stage configuration. Such inconsistencies should have, therefore, been apparent to any structural engineer reviewing the drawings. The fact that these overt inconsistencies were overlooked by the member is greatly concerning to the panel.

The structural drawings are also incomplete in that they contain no details of the connections between the cathead beams and pickup trusses. This was particularly concerning to the panel, given that the client had specifically alerted the member to the significant weight of the equipment to be installed and suspended from the structure and of the need to analyze and confirm that the structural design was adequate.

The panel accepts the findings of the expert report of Dr. Art Ivanchouck, PhD, P.Eng., which was attached to and included in the Agreed Statement of Facts and which catalogued the numerous other errors and omissions found in the drawings supplied by the member. These included: primary truss and primary truss pick-up point discrepancies; pulley beam/cathead beam discrepancies; omission of pulley beam connection details; scaffold bay size discrepancies; suspension cable connection detail omission; and failure to adequately evaluate the entire structural system when altering one component.

Given the above numerous, overlapping shortcomings, the panel has no hesitation in concluding that the member was negligent in his preparation, signing and sealing and transmission for use of the structural drawings. Moreover, given that the structure was designed as a temporary stage for a live concert performance and that the failure of the structure posed an obvious risk to the health and safety of the public, the panel finds that the member failed to make reasonable provision for the safeguarding of life, health and property of those who were likely to be affected by his work.

Similarly, the panel finds that the member was negligent and failed to make reasonable provision for safety when he conducted an inadequate site review of the stage structure. The member has admitted that

although he attended the site where the stage was being constructed, he failed to take adequate steps to examine either the pickup trusses or their connection to the cathead beams. As admitted, had he done so, he would have observed that the pickup trusses being used were not those depicted in the drawings and that they were not properly connected to the cathead beams.

This was concerning to the panel, as it is also admitted that the member had used the same designs for stages for many years. The panel fails to understand how the member could have overlooked this discrepancy between the actual trusses in use and those contained in the structural drawings other than by negligence and disregard.

The panel also finds that the member affirmed the structural adequacy of the stage without having a reasonable basis for doing so. By his field report dated June 15, 2012, the member asserted that he had conducted a review to verify the structural adequacy of the stage and asserted that the varied portions, including the primary truss and supports, were "found to be structurally sound and satisfactory for intended use." The panel notes that this affirmation by the member was without foundation given his failure to conduct an adequate inspection and in light of the numerous errors and omissions in the drawings underlying the stage's construction. Accordingly, the panel finds that the member was both negligent and failed to make reasonable provision for the safeguarding of life, health and property in making such an affirmation.

Finally, the panel concludes that the member's actions in respect of the drawings and his inadequate review of the construction of the stage clearly amount to conduct that would be regarded by the profession as unprofessional. Such significant and repeated failures to maintain the standards of the profession are self-evidently unprofessional and would be seen as unacceptable by the profession.

Construction Control

With respect to Construction Control, counsel for the association submitted that facts contained and admitted by the member in the Agreed Statement of Facts concerning the conduct of Construction Control could be relied upon by the panel as evidence of professional misconduct on the part of Construction Control. Counsel noted that, at the relevant times, Construction Control held a certificate of authorization issued by the association that listed Cugliari as a responsible engineer for the purposes of s. 17 of the act. Moreover, counsel submitted that, as the holder of the certificate of authorization and as Cugliari's employer, Construction Control was responsible for Cugliari's conduct. In support of this position, counsel referred the panel to the decision of the Discipline Committee in *PEO v. Saunders and M.R. Wright and Associates Co. Ltd.* from March 18, 2016.

The panel accepts that the aforesaid evidence inculpating Construction Control supported a finding of professional misconduct against Construction Control, which employed the member and for which the member served as a responsible engineer at the relevant times. Accordingly, for reasons analogous to those outlined above with respect to the member, the panel finds Construction Control guilty of professional misconduct in the same manner.

PENALTY

Member

Counsel for the association advised the panel that the member and the association were making a joint submission on penalty and provided a Joint Submission as to Penalty and Costs signed by the member on November 10, 2020, and by the association on November 11, 2020.

The Joint Submission as to Penalty and Costs provided, in part, as follows:

3. The PEO and Cugliari make the following joint submission on penalty and costs:
   a. Pursuant to s. 28(4)(a) of the *Professional Engineers Act*, Cugliari's licence shall be revoked;

   b. Pursuant to s. 28(5) of the *Professional Engineers Act*, the findings and order of the Discipline Committee shall be published, together with reasons therefor, *with* reference to Cugliari's name.

   c. There shall be no order as to costs.

Counsel for the association submitted that the proposed penalty fell within a reasonable range of penalties imposed in previous cases and appropriately served the principles of sentencing, including the protection of the public and maintenance of the public's confidence in the profession. She noted that the aims of rehabilitation and specific deterrence were not applicable in light of the fact that the member had resigned his licence.

Counsel further submitted that revocation serves to protect the public by ensuring that any future application for reinstatement by the member would have to be reviewed and determined by the Discipline Committee. This is in contrast to an undertaking to not reapply follow-

ing resignation, which would not require a formal hearing when reapplying for a licence.

Counsel for the member submitted that the member had fully co-operated with the association's investigation, had no prior disciplinary history and expressed remorse and apologized for his conduct.

Construction Control

Counsel for the association pointed out that Construction Control had relinquished its certificate of authorization and has since been declared bankrupt, although to her knowledge, the company still existed. She noted that it, therefore, did not pose a risk to the public, as it was not engaged in the provision of engineering services. She submitted that a $5,000 fine payable to the Minister of Finance should Construction Control ever seek reinstatement of a certificate of authorization and publication of the penalty with the respondent's name would be sufficient to achieve aims of general deterrence.

Because it was not represented at the hearing, Construction Control made no submissions on penalty.

PENALTY DECISION

Member

The panel carefully considered the Joint Submission as to Penalty and Costs. It is a well-established principle of law that a disciplinary panel should not interfere with a joint submission on penalty except where the panel is of the view that to accept the joint submission would bring the administration of the disciplinary process into disrepute or would be contrary to the public interest.

In the circumstances of this case, the panel is of the view that revocation of the member's licence and publication of the panel's findings and order with reference to the member's name is the only reasonable outcome in this matter; a lesser penalty would fail to appropriately serve the aims of general deterrence, protecting the public and maintenance of the public's confidence in the regulation of the profession.

The panel acknowledges the member's co-operation with the association through the Agreed Statement of Facts and his statement of remorse. These considerations, combined with his lack of a prior disciplinary history, are mitigating factors in determining an appropriate penalty. It is the panel's view, however, that these mitigating factors do not detract from the aggravating factors, given the seriousness of the misconduct in question.

The panel has already detailed the significant and troubling shortcomings in the member's practice in this case. The panel reiterates that the member has been found guilty of negligence and of failing to take reasonable precautions to safeguard the life and health of those who were affected by and relied on his work. The seriousness of these findings cannot be overstated. Tragically, this misconduct led to the death of one individual and the injury of three others.

Public trust is at the core of what it means to be a professional. Members of the public must have confidence that professionals are held to high standards of conduct and that serious breaches of those standards are dealt with appropriately. Failing to take a proportionate response to protect the public in the face of professional misconduct undermines that trust and harms both the reputation of the profession and the legitimacy of professional regulation.

In the circumstances of this case, the panel is of the view that an outcome short of revocation would undermine public confidence in the regulation of the profession and fail to adequately provide for protection of the public and general deterrence to the profession at large. The panel acknowledges that revocation is the most severe penalty the panel may impose upon a member of the profession; however, it is of the view that it is entirely justified in light of the magnitude of the misconduct at issue in this case.

The panel recognizes that the member has already resigned from the profession and is not engaged in the practice of the profession; however, the panel agrees with the submissions of the association that revocation appropriately protects the public by ensuring that should the member ever seek to return to practice, his licence application would have to be considered by the Discipline Committee in accordance with section 37(3) of the act. This would enable the Discipline Committee to consider the full set of circumstances and appropriately weigh whether the member poses an ongoing risk to the public. Under section 22(2) of the act, such an application for reinstatement cannot be made until two years have passed after revocation of a licence.

The panel notes that, under section 28(5) of the act, the panel is required to order the publication of revocations of licences and certificates of authorizations with names. Additionally, the panel notes that publication of its findings and reasons with the names serves to promote general deterrence of the profession and reinforce the public confidence in the regulation of the profession. Far from bringing the administration of the disciplinary process into disrepute, publication demonstrates, both to the profession and to the public, the seriousness with which the Discipline Committee regards significant lapses of professional standards and the penalties for engaging in such misconduct.

Accordingly, the panel accepts the Joint Submission as to Penalty and Costs for the member, and orders as follows:

a. Pursuant to s. 28(4)(a) of the act, the member's licence shall be revoked.

b. Pursuant to s. 28(5) of the act, the findings and order of the Discipline Committee shall be published, together with reasons therefor, *with* reference to the member's name.

c. There shall be no order as to costs.

Construction Control

The panel notes that Construction Control has already relinquished its certificate of authorization and was declared bankrupt. The panel accepts the association's submission that Construction Control does not currently pose a risk to public safety as it is not providing engineering services, and it is unlikely to do so in future.

The panel accepts the association's submission that imposing a fine of $5,000—the maximum permissible under the act—to be payable should Construction Control ever reapply for a certificate of authorization is a reasonable and appropriate penalty. The panel observes that this penalty is in line with prior decisions of the Discipline Committee where a former holder of a certificate of authorization is no longer active, including *PEO v. Saunders* above, and *PEO v. Jiri Krupka and CAElliott Inc.* decided October 30, 2014. The panel is of the view that this penalty, combined with publication of the panel's findings and reasons, serves to provide general deterrence and to help maintain public confidence in the regulation of the profession.

Accordingly, the panel orders as follows with respect to Construction Control:

a. Pursuant to s. 28(4)(h) of the act, Construction Control shall pay a fine in the amount of $5,000 to the Minister of Finance for payment into the Consolidated Revenue Fund, if and when Construction Control seeks reinstatement as a holder of a certificate of authorization to provide engineering services in Ontario.

b. Pursuant to s. 28(4)(i) of the act, the findings and order of the Discipline Committee shall be published, together with reasons therefor, with reference to the name of Construction Control.

The panel pronounced its determinations as to convictions and penalty at the conclusion of the hearing on November 16, 2020 and advised that its reasons were to follow. At the hearing, after the pronouncement of the penalty, the member waived his right to appeal and, thus, the effective date of the revocation of his licence is November 16, 2020, and it is so ordered.

Glenn Richardson, P.Eng., signed this Decision and Reasons for the decision as chair of this discipline panel and on behalf of the members of the discipline panel: Paul Ballantyne, P.Eng., and Eric Bruce, J.D.

DECISION AND REASONS ON PENALTY

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990, c. P.28; and in the matter of a complaint regarding the conduct of ALI D. TAHA, P.ENG., a member of the Association of Professional Engineers of Ontario, and GAD TECHNOLOGY INC., a holder of a certificate of authorization.

This is the Decision and Reasons on Penalty further to this panel's Decision and Reasons on the merits of this matter issued May 2, 2019. In its decision on the merits, this panel found the member, Ali D. Taha, P.Eng., and the holder, GAD Technology Inc. (GTI), guilty of professional misconduct in relation to the design of an energy-generating solar tracking device prototype. Specifically, the panel found that Mr. Taha and GTI were guilty of professional misconduct under sections 72(2)(a) (negligence), (b) (failure to make reasonable provision for the safeguarding of life), (h) (undertaking work not competent to perform) and (j) (unprofessional conduct) of Ontario Regulation 941 of the *Professional Engineers Act* (the act).

With the parties' consent, the panel conducted the penalty phase of the hearing in writing. The Association of Professional Engineers of Ontario (the association) provided its written penalty submissions on May 10, 2019. Mr. Taha and GTI retained Mr. Mark Fahmy, who then provided written penalty submissions on June 21, 2019. The association also provided reply penalty submissions on July 5, 2019.

The panel convened an oral hearing on August 20, 2019, to issue its decision orally. Mr. Fahmy was not present, but he briefly participated in the hearing by teleconference. In its oral decision, the panel ordered that Mr. Taha be reprimanded and required him to complete the professional practice examination, that his licence be suspended for a month and permanently carry a term or condition that he practise only in the area of mechanical engineering, that he and GTI pay costs of $2,000 and that the panel's order be published with the names of the defendants. The panel's reasons follow.

THE PENALTY SOUGHT BY THE ASSOCIATION

The association submitted that its requested penalty satisfies the five objectives of penalty: the protection of the public, the maintenance of the reputation of the profession in the eyes of the public, general deterrence, specific deterrence and rehabilitation. The association sought:

(a) that Mr. Taha be reprimanded, and the fact of the reprimand be recorded on the register permanently, pursuant to subsection 28(4)(f) of the act;

(b) that Mr. Taha's licence be suspended for one month, pursuant to subsection 28(4)(b);

(c) that it be a term, condition, limitation and restriction on Mr. Taha's licence that he engage in the practice of professional engineering only in the area of mechanical engineering, pursuant to subsections 28(4)(d) and 28(4)(e);

(d) that it be a term or condition on Mr. Taha's licence that he shall, within fourteen months of the date of this penalty decision, successfully complete the association's professional practice examination (PPE), pursuant to subsection 28(4)(d);

(e) that, if Mr. Taha does not successfully complete the PPE as ordered, his licence be suspended until he successfully completes the PPE or for 24 months (whichever comes first) pursuant to subsections 28(4)(b) and (k);

(f) that this Decision and Reasons on Penalty be published, together with the names of the defendants, in the official publication of the association, pursuant to subsection 28(5);

(g) that the defendants pay costs to the association of $10,000 within three months of this decision, pursuant to subsection 28(4)(j), and that this be a joint and several obligation on them.

THE ASSOCIATION'S SUBMISSIONS ON PENALTY

The association argued that, in severely under designing structures that were installed on a residential property and largely failed, Mr. Taha's work imperiled the public. The association submitted that both the restriction on Mr. Taha's practice and the requirement to pass the PPE should assist in ensuring that Mr. Taha's conduct will not imperil the public in the future.

The association asserted that an aggravating factor was that Mr. Taha did not obtain assistance from a qualified structural engineer and took no responsibility for the problems at the time of their occurrence. Moreover, he denied liability and treated the matter as a civil monetary dispute, without considering his professional responsibilities. The association argued that a serious penalty is needed as specific deterrence to Mr. Taha to ensure that in the future, his work remains within his area of competence and that he meets his professional and ethical responsibilities; in this regard, the suspension and the requirement to pass the PPE will reinforce his responsibilities and, hopefully, deter him from reoffending. The association added that the requirement to pass the PPE will also assist in Mr. Taha's rehabilitation.

Regarding general deterrence and maintenance of the reputation of the profession in the eyes of the public, the association stressed that the profession must clearly be held to a high standard and that Mr. Taha's conduct must be dealt with seriously. It argued that, together, the suspension, the publication with names and the restriction on practice will show that the profession properly deals with its obligations under the act to regulate its members and to protect the public.

Finally, the association argued that Mr. Taha contested the matter, and it was required to summons two witnesses and have the expert testify, which resulted in $11,101.98 in total costs. In the circumstances, the association submitted costs of $10,000 were reasonable and appropriate. The association noted the Discipline Committee's penalty decision in the Sinha case, which it argued is similar to this matter, ordered $10,000 in costs. The association concluded by noting that it seeks orders only on costs and publication against the holder, GTI, because while GTI remains an active corporation, it has not held a certificate of authorization since 2013.

MR. TAHA'S SUBMISSIONS ON PENALTY

In his submissions, Mr. Taha noted that he has been a licensed professional engineer since 2002 with no prior complaint or discipline history with the association. He also noted his lecturing at Seneca and Humber Colleges in the areas of electronics and mechanical engineering, and his 20 years of volunteer work with the Tetra Society of North America, which is a not-for-profit organization that designs and constructs custom assistive devices for individuals with disabilities.

Mr. Taha stated that he agreed with the association that restricting his licence to the area of mechanical engineering as per item (c) of the association's penalty and ordering that he complete remedial technical courses were appropriate penalties that will protect the public, provide general and specific deterrence and maintain the reputation of the profession in the eyes of the public. He argued that the remaining penalties sought by the association were harsh, excessive, disproportionate and did not meet the objectives of penalty.

Mr. Taha argued that the requirement to complete the PPE was unnecessary. Instead, he submitted that he should be ordered to complete technical courses and examinations offered by the association that are relevant to the circumstances of this matter because this would address the objectives of protection of the public and rehabilitation. Mr. Taha also argued that given his agreement to have his licence restricted to mechanical engineering, the need for suspending his licence was negated.

Regarding the reprimand, Mr. Taha submitted that a private reprimand should be considered, and any reprimand should be recorded on the register for a maximum of 12 months rather than permanently. He also asked that the panel not order that his and GTI's names be published in the official publication of the association.

Mr. Taha denied the association's aggravating factor submission, arguing that it was not supported by the evidence or the panel's findings. Mr. Taha argued that he was entitled to deny liability and proceed with a hearing and that it can never be an aggravating factor to ask the association to prove its case and proceed with a hearing. He submitted that the association wrongly stated that he took no responsibility at all for the problems at the time of their occurrence, when the evidence was that he discussed the various defects with Mr. Pandya and the means for resolving them to avoid serious problems. Mr. Taha argued that these actions show that he was aware of his professional responsibilities and tried, without success, to correct the failings of the units; accordingly, the serious penalty sought by the association is not warranted. Mr. Taha also asserted that he and GTI did not dispute most of the allegations and made reasonable concessions and admissions of fact.

Regarding costs, Mr. Taha argued that no costs should be ordered. He stated that he was within his rights to contest the matter, and his decision to do so should not be the paramount consideration for costs as the association has argued. Mr. Taha also argued that the Sinha case put forward by the association was not similar, because the member in that matter did not attend the hearing and was found to have disregarded the Discipline Committee's processes, and even so, in the Sinha case, only one-third of the association's actual costs were ordered; applying that standard to this matter would result in costs of $3,663, not $10,000 which amounts to 90 percent of the association's actual costs.

THE ASSOCIATION'S REPLY SUBMISSIONS

The association stated that, in fact, Mr. Taha denied all of the allegations at the outset of the hearing, thus requiring it to call all of its witnesses and prove the ultimately uncontested events. It also asserted that, even at the hearing, Mr. Taha treated the matter as a civil dispute between himself and Mr. Pandya and sought to place all the blame on Mr. Pandya.

In reply to Mr. Taha's suggestion that he take technical courses and not the PPE, the association stated that the PPE focuses on law and ethics as applied to professional engineers. It submitted that this is one of the issues at the heart of the problem in this case and noted that Mr. Taha's belated grudging admission under cross-examination, that he should have discussed safety issues, is not sufficient to ensure that the public is protected in the future. The association submitted that the PPE would remind Mr. Taha of his professional obligations. As for technical courses, the association argued that it makes no sense to order Mr. Taha to complete technical courses and examinations in structural engineering since, as the defendants have agreed, he will be restricted to practising mechanical engineering. And courses in mechanical engineering, if that is what the defendants suggest, would not address the key issues in this matter: practising outside his area of competence and failing to recognize his professional responsibilities. Moreover, there is no evidence Mr. Taha lacks competence in mechanical engineering.

REASONS FOR PENALTY DECISION

The panel agrees with the association's submission that Mr. Taha's conduct warrants a serious penalty. The panel found that Mr. Taha negligently designed a solar tracking device prototype, failed to satisfy his professional responsibilities to safeguard life, health and property with respect to his design and failed to work within his area of competence. The panel also found that Mr. Taha was unprofessional in his and GTI's provision of engineering services to and dealings with Mr. Pandya, an individual motivated by profit whom Mr. Taha allowed to use his engineering work in a dangerous and opportunistic way. In these circumstances, the panel believes that most of the penalty provisions sought by the association are reasonable and appropriate.

The panel agrees with the parties that an oral reprimand and a condition on Mr.Taha's licence restricting him to practising only mechanical engineering are reasonable and appropriate penalties. The panel believes that Mr. Taha will benefit from an oral reprimand that will impress upon him the importance of always ensuring that he satisfies his professional obligations as a professional engineer. An oral reprimand and its permanent recording on the register will satisfy all five of the objectives of penalty. Placing a permanent condition on Mr. Taha's licence will protect the public and, importantly, maintain the reputation of the profession in the eyes of the public by making it clear that the panel does not condone the practice of professional engineering outside of a professional engineer's area of competence.

The panel also agrees with the association's submission that a suspension is warranted. A suspension satisfies the goals of general and specific deterrence. A suspension demonstrates that the panel takes Mr. Taha's and GTI's professional misconduct seriously and in doing so, it maintains the reputation of the profession in the eyes of the public. Publication of the panel's Decision and Reasons on Penalty with names will also maintain the reputation of the profession is upheld in the eyes of the public, while also protecting the public and ensuring specific and general deterrence.

Considering the nature of the professional misconduct in this matter, the penalty provision that will best serve the objective of rehabilitation is Mr. Taha's successful completion of the PPE. In his submissions on penalty, Mr. Taha appears to believe he does not need remediation in professional ethics and responsibility. He does. Technical courses and examinations as suggested by Mr. Taha are not an alternative to the completion of the PPE because there is no suggestion that he needs remediation in mechanical engineering; Mr. Taha appears to be competent in mechanical engineering and, going forward, he will be restricted to practising only mechanical engineering. The panel agrees with the association that the PPE's focus on law and ethics as applied to professional engineers, is at the heart of this matter and would assist in remediating Mr. Taha. The panel also believes that the requirement to complete the PPE would assist in deterring Mr. Taha in the future and protecting the public.

Regarding the requirement to successfully complete the PPE within 14 months, the panel declines, on jurisdictional grounds, to attach a further suspension under section 28(4)(k) for the potential failure to complete the PPE, as requested by the association. The panel does not believe it has the power under section 28(4)(k) to make the order sought by the association; to order the imposition of an additional penalty, in the form of an additional suspension, if an order provision is not satisfied in the future. The panel does not interpret section 28(4)(k) of the act as permitting this type of penalty. Section 28(4)(k)(i) states:

(4) Where the Discipline Committee finds a member of the association or a holder of a certificate of authorization, a temporary licence, a provisional licence or a limited licence guilty of profes-

sional misconduct or to be incompetent it may, by order,

(k) direct that the imposition of a penalty be suspended or postponed for such period and upon such terms or for such purpose as the Discipline Committee may specify, including but not limited to,
  (i) the successful completion by the member or the holder of the temporary licence, provisional licence or limited licence of a particular course or courses of study[.]

The panel interprets this section as allowing for the suspension or postponement of an imposed penalty provision pending the future completion of a course. The words "direct that the imposition of a penalty shall be suspended" mean that a penalty must exist and must be ordered before the Discipline Committee can direct, under section 28(4)(k), that the imposition of that existing penalty shall be suspended. In the association's submissions, it has already sought a one-month suspension as part of the penalty that addresses the panel's findings of professional misconduct. The 24-month suspension that it seeks is not an existing penalty sought to address the panel's findings. Rather, it is an additional penalty sought for a future failure. In the circumstances of this matter, section 28(4)(k)(i) could be relied on to suspend the one-month suspension for 14 months pending Mr. Taha's completion of the PPE. However, section 28(4)(k)(i) does not give the panel the power to impose a 24-month suspension for a possible future failure of the member that is not based on the panel's findings of professional misconduct. For these reasons, the panel does not rely on section 28(4)(k) for any of the penalty provisions in this Decision and Reasons on Penalty.

Finally, with respect to costs, the panel believes that an award of costs is warranted, but not in the amount sought by the association. It is true that Mr. Taha ultimately made a number of admissions that would have resulted in a shorter hearing, or a resolution without a hearing, if he had made them earlier. This resulted in the association incurring costs for the hearing that could have been avoided, at least in part. In these circumstances, and considering the other penalty provisions the panel is ordering Mr. Taha to fulfill, costs in the amount of $2,000 are reasonable and appropriate. The panel believes that these costs will satisfy the penalty objectives of deterrence and maintaining the reputation of the profession in the eyes of the public.

THE PENALTY

The panel orders that:

a. Mr. Taha shall be reprimanded, and the fact of the reprimand shall be recorded on the association's register permanently, pursuant to subsection 28(4)(f) of the act.

b. Mr. Taha's licence shall be suspended for one month, pursuant to subsection 28(4)(b) of the act.

c. It shall be a term, condition, limitation and restriction on Mr. Taha's licence that he shall engage in the practice of professional engineering only in the area of mechanical engineering, pursuant to subsections 28(4)(d) and 28(4)(e) of the act.

d. It shall be a term or condition on Mr. Taha's licence that he shall, within 12 months of the date of this Decision and Reasons on Penalty, successfully complete the association's professional practice examination, pursuant to subsection 28(4)(d) of the act.

e. This Decision and Reasons on Penalty shall be published, together with the names of the defendants, in the official publication of the association, pursuant to subsection 28(5) of the act.

f. Mr. Taha and GTI shall pay costs to the association of $2,000 within three months of the date of this Decision and Reasons on Penalty, pursuant to subsection 28(4)(j) of the act, and that this shall be a joint and several obligation on them.

Stella Ball, LLB, signed this Decision and Reasons on Penalty as chair of this discipline panel and on behalf of the members of the panel: James Amson, P.Eng., Paul Ballantyne, P.Eng., Michael Chan, P.Eng., and Robert Willson, P.Eng.

FALL 2020 REGULATION CHANGES PROCLAIMED

Effective December 7, 2020, Regulation 941 under the *Professional Engineer Act* has been amended as follows.

PROVISIONAL LICENCE

- The amended s.44.1 of Regulation 941 clarifies the test the registrar shall apply ("may grant" changed to "shall issue") for giving a provisional licence to someone who qualifies. The qualifications for a provisional licence are set out in the act and the regulation and remain unchanged.

OTHER HOUSEKEEPING CHANGES

- In addition, the amended regulation includes some necessary housekeeping items, as follows.
  - o It updates the term "Canadian Council of Professional Engineers" in section 29(f) to "Engineers Canada" as per that organization's legal name change in 2013;
  - o It removes the clause "subject to the Chapter's by-laws" in section 32.1, thereby allowing engineering interns to hold any position on a chapter executive;
  - o It changes the clause "an engineering program from a Canadian university" to "a Canadian engineering program" in section 33(1) to potentially allow for CEAB-accredited engineering programs at other institutions;
  - o It changes the term "thesis" in sections 33 and 36 to "engineering report" to reflect the terminology currently in use;
  - o It reflects Council's decision in March 2020 to use a National Professional Practice Examination (NPPE); see sections 1, 37, 38, and 46 of the regulation;
  - o It changes the term "the date of submission of the application for membership by the applicant" to "the date on which the applicant submitted the application" in section 37, since a person applies for a licence, not membership to PEO under sections 5 and 14 of the act; and
  - o It adds "limited licence" to section 37 to make sure that it is clear, as in section 46, that an applicant in this category must also pass the NPPE.

The updated Regulation 941 can be found at ontario.ca/laws/regulation/900941.

AT THE HELM: The role of Council in making PEO a more effective regulator

By Adam Sidsworth

PROFESSIONAL ENGINEERS HAVE HAD THE RESPONSIBILITY AND PRIVILEGE TO SELF-REGULATE SINCE 1922, AND COUNCIL—PEO'S GOVERNING BODY—IS AT THE HELM. WE EXPLORE WHY THIS MIGHT BE AN EXCITING TIME TO SERVE ON COUNCIL AS PEO EMBARKS ON PERHAPS THE MOST AMBITIOUS GOVERNANCE REFORM AND OPERATIONAL AND ORGANIZATIONAL IMPROVEMENT PROJECTS IN ITS HISTORY.

When the province granted professional engineers the right to self-regulate on June 14, 1922, it placed a tremendous amount of trust in Ontario's professional engineers to protect the public interest. In the nearly 100 years since, PEO has had to evolve in many ways, notably when it passed its advocacy role to the Ontario Society of Professional Engineers in 2000. In the years since, the regulator has been focusing on improving its core regulatory and governance processes—and this year more than ever, it is poised for change.

In the fall of 2018, Council voluntarily engaged external experts to gauge PEO's performance as the provincial engineering regulator. The subsequent report, which Council released publicly in June 2019, had PEO performing well in some areas while there were suggestions for improvement in others. Council reacted immediately, directing PEO staff to develop a high-level action plan and an activity filter to assess all PEO committees, subcommittees and working groups to determine whether they fall into core regulatory, regulatory policy, governance or neither roles (see CEO/Registrar's Report, *Engineering Dimensions*, November/December 2020, p. 8). On top of that, Council is undertaking a multi-year governance enhancement initiative. November 2020's Council meeting saw timelines approved for a Governance Roadmap, a four-phase plan designed to renew the function and role of Council, along with approving governance directives to help Council develop more detailed principles and policies related to the roadmap (see p. 46). Council and staff are already undergoing its first phase, which includes:

- Progressing towards a Council that is focused on governance while delegating operational matters to committees or appropriate PEO staff;
- Amending the president's terms of reference to lead Council in governance while delegating operational responsibility to PEO senior staff;
- Providing advice on how Council meetings are conducted and revise or develop new protocols on electronic meetings and in-camera sessions by Council's governance and parliamentarian consultant, Governance Solutions Inc. (GSI); and
- Developing a councillor training and development program and cheat sheet by GSI to help guide councillors during meetings.

Subsequent phases will focus on reviewing and improving the effectiveness of PEO committees, involving reviewing their structures, scopes and mandates and agreeing on an appropriate model for committees going forward. A third phase looks at improving the governance effectiveness of Council by defining what good governance looks like, such as the size and structure of Council, the demographic and skillset composition of Council and the development of a Council Member Competencies and Attributes Matrix. And a fourth stage will look at improving the governance effectiveness of other PEO components, such as chapters and committee volunteers, including their scopes and mandates.

WHO AND WHAT IS PEO COUNCIL?

Council is comprised of both elected professional engineers as well as lay people appointed by the provincial government and has a mandate to provide the overall direction for PEO and the profession and to uphold PEO's duty to protect the public interest. Council currently has 25 councillors, of whom 16 are professional engineers elected by their fellow PEO members, including:

- One president, who transitions from the year's previous president-elect and acts as the chair of Council for a one-year term;
- One president-elect, who is chosen by members at large and transitions to the president's role the following year;
- One past president, who transitioned out of the president's role from the year before and serves in this capacity for a year;
- One vice president, who is elected by all members for a one-year term;
- Three councillors-at-large, who are elected by PEO members for a two-year term; and
- 10 regional councillors, who are elected to two-year terms (PEO's 36 chapters are divided into five geographical regions, each of which elects two members).

"What is Council? The shepherds," West Central Region Councillor Warren Turnbull, P.Eng., FEC, says. "We're responsible for making sure [PEO] is doing what it's supposed to be doing. And looking out for the protection of the public."

Council functions much like the governing body and board of directors of the regulator. Meetings consist of agendas that contain reports, information and motions that are voted on. Motions to change bylaws—for example, a proposed increase to the fee to write the National Professional Practice Examination presented at the September 2020 Council meeting—are researched, written and recommended by PEO staff and then discussed by

Warren Turnbull, P.Eng., FEC, is nearing the end of his third consecutive term as West Central Region councillor and will be retiring from his role on Council at the 2021 Annual General Meeting.

Lisa MacCumber, P.Eng., FEC, is a West Central Region councillor who is reaching the midterm of her position on Council. MacCumber maintains a full-time engineering position with the provincial government while volunteering extensively on Council and PEO committees.

Marisa Sterling, P.Eng., FEC, is PEO's current president. Sterling was inspired by her father, a former PEO president, to run for the presidency and has had the challenging task of leading Council through a pandemic.

Council, which can choose to pass, defeat or defer the motion. Other proposals can require changes to the *Professional Engineers Act* (PEA), which require approval of the provincial legislation, but Council can direct the CEO/registrar to take the required steps to propose legislative changes to the attorney general, to whom PEO reports. Council also considers submissions passed by licence holders at PEO's annual general meeting (AGM) each spring.

Council decisions can also have an impact on how professional engineers practise. Consider, for example, that Council can make decisions that can significantly affect anything from licence holder fees—PEO's fees are currently among the lowest of Canada's 12 provincial and territorial engineering regulators—to passing guidelines that can affect how professional engineers carry out their work. But significantly, though, Council is ultimately responsible for ensuring that PEO carries out its mission to protect the public interest. When professional engineering isn't properly regulated, safety, health, property, economic interests and the public interest and environment can all be impacted. And Council is the guiding force to ensure PEO meets its mandate under the PEA, under which PEO must establish, maintain and develop standards of:

- Knowledge and skill among its members;
- Qualifications and standards of practice for the practice of professional engineering; and
- Professional ethics among its members.

Prior to COVID-19 hitting last March, Turnbull—who will reach his councillor term limit at this year's AGM—notes that full-day meetings happened approximately six times per year. Meetings were in person on Fridays, with a plenary session on Thursday evenings held after a meal provided by PEO. However, the meetings have since moved online.

WHY RUN FOR COUNCIL?

According to PEO's *2021 Elections Guide* (peo.on.ca/sites/default/files/2020-10/2021ElectionsGuide.pdf), any PEO member considering running should have, among other things:

- A good understanding of PEO's core values (including accountability, respect and teamwork);
- Decision-making skills;
- Change management skills; and
- Working knowledge of the PEA.

West Central Region Councillor Lisa MacCumber, P.Eng., FEC, was asked by former Council members to run because of her understanding of regulations and governance. "Another reason would have been my interest in accountability mechanisms and transparent policies," she says. In fact, it was through her job with the Ontario Ministry of the Environment, Conservation and Parks that MacCumber became more familiar with the day-to-day impact of PEO on members beyond paying the yearly PEO licence fees. "I work on developing technical regulations, policy and other technical guidance that in some instances require the use of qualified individuals, regulations otherwise referred to as demand-side regulation," MacCumber says. "I felt that PEO needed to look at improving transparency in policy and process and my interest is in accountability mechanisms." MacCumber uses herself as an example of someone who was able to get elected to Council despite not necessarily having the suave of an experienced politician. "I'm not the best outreach person," she says. "People send me LinkedIn requests, and I reply two weeks later. I'm not on Facebook. I don't use Twitter. I'm not the best to reach out to people to vote." Yet MacCumber was successful in her candidacy, and she is nearing the midterm mark of her second two-year term.

Turnbull came to Council following participation in PEO's chapter system—a pathway for many councillors—serving on the Oakville Chapter executive, including as event coordinator, chair and past chair, before his initial run for West Central Region councillor nearly six years ago. "I had already contributed at the chapter level, and I thought maybe I could contribute more," Turnbull explains. "The incumbent councillor was giving up his councillor position to run for vice president, so since there was no incumbent, I gave it a shot."

PEO President Marisa Sterling, P.Eng., FEC, may have a truly unique pathway to Council, for her late father, G. Gordon Sterling, P.Eng., was 2001–2002 PEO president. In fact, it was Gordon, in his capacity as then-chair of the Willowdale-Thornhill Chapter, who presented Sterling her licence at an early '90s licence ceremony. Additionally, Sterling subsequently became a PEO employee in the late aughts, initially supporting the PEO chapter system before becoming PEO's manager of enforcement. It was only after Sterling left PEO and accepted a position in the academic world—initially at York University and then the University of Toronto—that she ran for Council, first as vice president (elected) and then, in 2019, becoming president-elect, transitioning into the presidency for 2020–2021.

PREPARING FOR COUNCIL MEETINGS

Both MacCumber and Turnbull note the extensive reading that is required before a given Council meeting so they can make informed decisions. "I had one [meeting agenda] that was 800 pages long," Turnbull observes. Turnbull's advice? Read the executive summaries and ask questions of PEO staff at the meetings for their expertise. Additionally, PEO provides councillors with tablet devices that make navigating the agendas more manageable.

MacCumber suggests reading the briefing notes in sections well in advance. "You don't have to read it in one sitting," she asserted. "We now have Diligent board meeting software, so it's easy to mark everything up." Plus, MacCumber notes that when you are on a committee that has prepared a briefing note, it makes it easy for you to take the lead on that topic at Council.

For Sterling, effectively planning your time on Council so that you can serve at PEO and still work full time or attend to other commitments is crucial. "I have a very demanding job at the University of Toronto," Sterling admits, "so in my case, I need to be very careful with my time to maintain my professional commitments to my employer while maintaining my commitment to the public through my PEO presidency. The PEO presidency is an unpaid role, so I'm grateful to my employer, who gives me the flexibility with my time, but my workload and required deliverables have not decreased. Creating systems to improve the efficiency of the presidential role is what I can leave to my successor so that people with full-time jobs and similar restrictions on their time will run for Council elections."

FROM THE BOARDROOM TO ZOOM

"I don't know of any PEO president who has experienced what I have experienced, starting my presidency during a pandemic, and if it will continue next year," Sterling says of Council's transition to virtual meetings, which occurred in March 2020 when in-person meetings were restricted due to the COVID-19 pandemic. "It could be a one-off year. Working with people through my computer monitor is very different than doing the job in person. I'm lucky to already have the familiarity with so many of the staff and councillors at PEO to be able to effectively connect with them. It was really important to me this year to recognize the challenges councillors and staff might be facing in their personal lives to manage through COVID-19, such as family responsibilities and job impacts and still do their due diligence and deliver on their PEO work."

Sterling says that although she and councillors can meet only through a computer screen, they've managed to develop a sense of community. In fact, Sterling has taken to Council meetings on Zoom, despite the challenges of chairing 25 councillors in an effective meeting online. "The role of chair online is even more challenging," Sterling admits. "There are multiple things to look at. I've got to keep the agenda and materials in view; I also need a screen to see all the councillors. I need to look at who has their hands raised and to speak and keep the meeting on time and follow the procedures."

Whether or not PEO continues with virtual Council meetings in a post-COVID-19 world, Sterling recognizes the advantages of online meetings: They allow the public and engineers, particularly those outside the Greater Toronto Area, to be able to attend and participate. "We have one councillor from Kenora," Sterling notes. "To come from Kenora to Toronto is a significant amount of travel time compared to someone flying in from Ottawa. The more Council embraces technology as the norm will be better compared to treating our online meetings as a temporary solution during COVID. Think of all those individuals who can now participate as councillors who might not have done so because of distance to travel, work responsibilities or personal and family responsibilities."

An in-person Council meeting, held prior to the pandemic, at PEO headquarters

Turnbull says that even for councillors in the Toronto area, having Council meetings pivot to a Zoom platform has had an added benefit of taking out the commuting time. "I do enjoy Zoom meetings," Turnbull admits. "They're a more effective way to work. Now that we've gotten used to it, I don't see a lot of difference. Everyone still has an opportunity to speak. Every once in a while, someone doesn't put their hand up, but we navigate around it, just as we would if we were face to face." In fact, in his role as chair of PEO committees,

Turnbull quickly embraced online meetings. "I'm chairing the Government Liaison Committee, and as soon as the pandemic hit, I said, 'We can do our own Zoom,' and we've been doing it monthly. And we did our Government Relations Conference via Zoom (see p. 10). I thought the conference turned out quite well." But Turnbull hopes that once the pandemic eases and a normalcy can return, Council and its various committees embrace a hybrid of both online and face-to-face meetings, if just to let councillors and committee members socialize while allowing for people from across the province to engage with PEO.

AN EXCITING TIME TO BE ON COUNCIL

As Council enacts its governance enhancement initiatives, MacCumber predicts that upcoming Councils will be exciting to serve on. "It's a busy time for Council to make decisions and to ask good questions and to improve PEO as a regulator, especially in terms of licensing and enforcement," MacCumber says. She sees the thrill of being part of a group of councillors making the important decisions.

Turnbull adds that licence holders wanting to make a difference should consider running for Council now as it is embarking on governance reform. "When I first joined Council, it was a dichotomy of Council, and once in a while, one side would get something passed by one or two votes," Turnbull says. "[But now], people have different opinions but we're usually able to work out a good decision. We are achieving a lot." One thing that Turnbull says seems to be working are the new in-camera strategic conversations that happen prior to Council meetings. "Having those contentious issues worked out before we go public helps," he says. Having a governance consultant at Council meetings is improving meetings, too, and he's hopeful that the new governance structure will make PEO a more effective regulator.

Sterling introduced the monthly strategic conversations towards the end of 2020 in part to help with the pacing of Council meetings. "[They are] informal conversations that allow us to discuss strategic directions well in advance of when they come to Council. It's really helpful to have [PEO] management and councillors ask questions and build consensus early on the issues facing PEO," Sterling says. "We have never done this before, but it's a real strength to how we operate as a Council. Hopefully, the concept will continue in future years so Council meetings can continue to be shorter and run more efficiently. In the end, we need to ensure Council does not fall short on its responsibilities to the public while bringing our voices together."

FINDING THE CONFIDENCE TO RUN FOR COUNCIL

Turnbull admits he was unsure of himself when he first joined Council and was nervous to speak up at meetings, but over the past five-and-a-half years, he has become much more comfortable. "I actually sat in on one or two meetings before I was a councillor to get a sense of what it was like and see where you're going," he says. "When I was first on Council, I wasn't sure if my opinion would be taken seriously. I was probably reluctant to speak. Now I speak what I think."

Sterling goes even further: Despite her work experience and family history at PEO, she was hesitant to run for the presidency. "I ran for vice president first because I wanted to better understand PEO's current priorities and have a voice at the executive table. I wanted to contribute and give back after leaving my PEO role," Sterling says. "After I ran for vice president, I really questioned whether I wanted to run for president…I questioned whether my one voice could make a difference. I believe in being involved in an organization to bring about a positive change."

But her advice to engineers considering running is to be brave and take the plunge, for if she had doubts, given her extensive background at PEO, it's likely that other members do too. "It's hard to bring about change, and it's isolating," Sterling observes. "I could have given up, but I didn't. I thought that if I don't step up, I'm just perpetuating the status quo, and that might cause harm to someone else in the future. I hope I've brought only positive improvement. Taking the difficult path can be the most rewarding. That is what drives me. I feel a lot of personal responsibility to the public and to Council to help it fulfill its role. I'm very proud of what Council is accomplishing this year, and I now know I made the right choice."

VOTING IN COUNCIL'S ANNUAL ELECTIONS

Voting for the 2021–2022 Council takes place from January 15 to February 19. Members can find the candidate statements in this issue's centrefold and cast their vote at peovote.ca. On its website, PEO reminds members why voting is important: "Self-regulation of engineering in Ontario is a privilege—not a right. By voting in the Council elections, you're doing your part to ensure that we, as professional engineers, are in a strong position to continue regulating our own profession to protect the public interest and promote the integrity of engineering in Ontario." **e**

HOW TO GET INVOLVED IN PEO AND AFFECT CHANGE

There are numerous ways engineers can make a difference in the governance of their profession:

1. Vote in PEO elections.
2. Consider running for Council.
3. Follow Council news through PEO's website, peo.on.ca, or by reading *Engineering Dimensions*.
4. Communicate with your PEO councillors, particularly your regional councillor, on issues relevant to you.
5. Consider writing a letter to the editor of *Engineering Dimensions* or pitching an idea for an article during *Engineering Dimensions'* annual call for ideas.
6. Become involved in your local PEO chapter.
7. Volunteer for PEO, particularly for its numerous committees and working groups.
8. Attend PEO's annual general meeting, where members can vote on and introduce motions that could be considered by Council.
9. Attend and observe Council meetings, which are open to the public and currently being conducted online.

CALL FOR NOMINATIONS:

AWARD FOR ENGINEERING PROJECT OR ACHIEVEMENT

PROFESSIONAL ENGINEERS AWARDS

DO YOU KNOW AN ENGINEERING TEAM THAT HAS LED A SUCCESSFUL ENGINEERING PROJECT OR ACHIEVEMENT?

The Ontario Professional Engineers Awards (OPEAs) are now considering submissions for the 2021 Award for Engineering Project or Achievement, which pays tribute to an endeavor that has made a significant, positive impact on society, industry and/or engineering and that was conceived, designed and executed with significant input by Ontario engineers. A black-tie gala is tentatively scheduled for November (depending on the public health situation) to honour the 2021 recipients, hosted jointly by PEO and the Ontario Society of Professional Engineers.

Previous recipients of the award include Hands-Free Mooring, by the St. Lawrence Seaway Management Corporation; the Dual Education Program, by Siemens Canada; the 2nd Concession Project, by The Regional Municipality of York; and the Bombardier Global 7500 Business Jet.

WINNER OF THE 2020 OPEA FOR ENGINEERING PROJECT OR ACHIEVEMENT
NATIONAL ARTS CENTRE REJUVENATION

FOR MORE INFORMATION, SEE THE OPEA CALL FOR NOMINATIONS ON PAGE 17

Originally designed as a “fortress for culture,” the once monolithic and windowless National Arts Centre now shines as an iconic beacon for the performing arts for more than 1.2 million visitors every year. An embrace for both beauty and function inspired a hybrid wood-steel solution and use of pre-fabricated panels with an integrated systems approach.

The coffered ceiling, which covers a 60,000-square-foot glass-clad extension, is a defining feature in the project, captured by the harmony between the depth and gaps of the coffered roof. The transformation of the arts centre also features three newly connected wings, cultural programming enclosed by a custom glass curtain wall, a grand staircase and a hexagonal tower overlooking the Rideau Canal. The rejuvenated National Arts Centre opened on July 1, 2017 in celebration of Canada’s 150th year anniversary and continues to carry symbolic value to this day.

ENGINEER AIMS TO BUILD A BETTER WORLD

By Marika Bigongiari

Belinda Wong, P.Eng., lives by a guiding principle: to be a fantastic engineer. "If I keep pursuing that, I know everything else will fall into place," she explains. And although it's still early in her career, the University of Waterloo civil engineering graduate is well on her way. Wong is a senior engineer at the Toronto office of global engineering firm Entuitive, where she's worked for seven years. She identifies with the firm's ideals, which include a strong focus on social responsibility and building for a better world. "Engineers have a role to play," Wong says. "We are becoming more and more aware of the impact our industry has on the environment and understand that we need to do better to create a sustainable future. It's important we educate our clients and provide environmentally friendly solutions that also meet their needs."

In recent years, Wong's work has focused on healthcare and institutional projects. She recently wrapped up work on the greatly anticipated 1.2 million-square-foot Cortellucci Vaughan Hospital, which is set to open its doors in early 2021. It is the first hospital to be built in the City of Vaughan, the first new hospital to be built in Ontario in more than 30 years and it will feature the latest in integrated smart technology systems. It's a project in which Wong performed no fewer than four roles: designer, project manager, client representative and contract administrator. Wong highlights the relationships she built with the consultants and partnering firms that worked collaboratively with Entuitive to submit the winning bid, particularly the project's design builder, PCL Construction, whose site team gave her valuable insight on how to be a good designer and project manager. Her work on the project began during the request-for-proposal phase to produce a competitive bid. "During this phase, I focused on designing different elements of the hospital," Wong explains. "My biggest task was to build finite element slab models in SAFE (slabs and foundation design software) and extract the necessary quantities required for estimating construction costs. I was really proud of the final bid package as it clearly communicated our vision of the building."

As project manager, she split her time between consultant coordination meetings, managing the internal design team and design items like detailing the lateral system in ETABS (extended three-dimensional analysis of building systems software). "The timeline for our construction documents were aggressive, as the structural scope always leads," says Wong, who stayed on the job as contract administrator throughout the construction phase. She appreciates getting the site experience, explaining that it made her a more well-rounded engineer—and a more confident one. "I attended weekly site meetings, reviewed RFIs (requests for information) and shop drawings and performed site reviews," she observes. "The more prepared I was and the more I knew my stuff, the more I was able to find my voice around the table. It was empowering to know my ideas mattered and that I was able to offer value to the whole team."

PAYING IT FORWARD

When Wong was in Grade 4, her family emigrated from China. In that first year in Canada, she recalls how she struggled to learn English and naturally gravitated towards math and sciences. Her father, a foreign student who earned a double degree in pure math and computer science, had dreamed of becoming an engineer in Canada, but, because of language barriers and financial burdens, he wasn't able to reach his goal. "I have great memories working through math and physics problems with my father, and it seemed natural I would ultimately end up as an engineer," Wong says.

Grateful to have benefitted from mentoring and appreciative of the knowledge and opportunities it afforded her, Wong thinks others should have similar chances—and that's why she's an active volunteer outside of work. Recently, she was a virtual guest speaker for a Grade 6 class, with whom she talked about how to set goals and succeed. "I got to speak with a lot of bright, hopeful students who want to become engineers," she beams. She also signed up with the Canadian affiliate of ACE Mentors Program, an afterschool program that encourages high-school students to pursue careers in the architecture, construction and engineering industry, including skilled trades. Wong also teaches Brazilian jiujitsu with her husband, who shares her respect for mentorship. "We get to connect with a lot of young adults and teenagers who didn't have the best resources growing up," she explains. "It's really important for us to pay it forward."

Wong's next project with Entuitive is the new SickKids Patient Support Centre, in downtown Toronto, with 22 stories above-grade and three levels of basement and construction already underway. **e**

Belinda Wong, P.Eng., a senior engineer at Entuitive, recently worked on the new Cortellucci Vaughan Hospital.

WHO CAN CALL THEMSELVES A CONSULTING ENGINEER?

PEO's consulting engineer designation promotes recognition of engineers in independent practice, but specific criteria must be met before a professional engineer or firm can use the title.

By Marika Bigongiari

The consulting engineer designation is a reserved title that identifies a subset of practitioners who provide engineering services to the public. Consulting engineers are confident in their abilities, accept their responsibility to serve the public and are often highly qualified or at the forefront of their fields of practice.

PEO's consulting engineer designation was established in the 1984 *Professional Engineers Act* (PEA) and was later formalized in Regulation 941/90 of the PEA. The designation promotes a further recognition of engineers who are specifically engaged in independent practice, but it doesn't, on its own, allow practitioners to provide professional engineering services to the public. A consulting engineer may only provide services to the public in accordance with a certificate of authorization (C of A).

However, holding a C of A does not entitle professional engineers to call themselves "consulting engineers" or to advertise their services as consulting engineers. The designation is a distinction that is conferred upon existing licensees who meet specific criteria, and despite holding a C of A, individuals must be designated by PEO to be able to use the restricted title of "consulting engineer." C of A firms also require permission to use the notation "consulting engineers" or a variation of the title in their corporate names.

GETTING DESIGNATED

Granting the consulting engineer designation is a regulatory function of PEO Council, acting on the recommendations of the Consulting Engineer Designation Committee (CEDC). The CEDC is guided by Regulation 941/90, and it engages with PEO staff and Council to promote awareness of the designation. Through its regional subcommittees, the CEDC reviews applications for new designations and re-designation of candidates, along with requests for permission to use the notation "consulting engineers" in the corporate names of engineering firms. The CEDC subsequently makes recommendations to Council on whether to approve the applications and requests for permission to use the notation. "The CEDC ensures that the applicants meet PEO's high standards for designation or re-designation as a consulting engineer," says Cliff Knox, P.Eng., FEC, PEO's division manager, licensing and registration. "They are a dedicated committee of professionals that complete their regulatory tasks efficiently, with a minimum of guidance from staff or Council. CEDC is a model for the effective administration of regulatory duties."

To be designated as a consulting engineer, an individual must be:

- A member of PEO;
- Have five or more years of engineering experience after becoming licensed; and
- Have continuously and be currently engaged in the independent practice of professional engineering in Canada for at least two years.

A member is considered to be in the independent practice of professional engineering if they either hold a C of A or are a partner or employee of a firm that holds a C of A and they are primarily engaged in providing professional engineering services to the public. Applicants must either derive at least 50 per cent of their earned annual income from consulting engineering or spend at least 50 per cent of their working hours in consulting. Applicants who are partners or employees of C of A firms must be designated in the certificate application or renewal form as a person who, on behalf of the holder, will assume responsibility, supervise and be primarily engaged in the professional engineering services that are offered or provided to the public.

Only a member who has been designated or re-designated as a consulting engineer may use the title consulting engineer, and the designation expires every five years. On the recommendation of the CEDC, Council re-designates individuals who:

- Are members of PEO;
- Are currently engaged in the independent practice of professional engineering in Canada; and
- Have satisfactory professional engineering experience during the five years since the date of issue of the applicant's most recent designation.

A candidate requesting designation or re-designation as a consulting engineer must complete and submit PEO's application form, which can be downloaded from PEO's website. The application requires each candidate to outline:

- Current employer and status of employment;
- Academic qualifications;
- Membership in professional associations, technical societies, etc.;
- Disclosure of any prior findings relevant to the candidate's professional practice;
- Current engineering activities and anticipated activities until their next five-year renewal;
- A minimum of two representative engineering projects per year for which they have had active involvement over each of the last five years; and
- Professional engineer and client references who can confirm their work experience, one of which must be a designated consulting engineer.

For information on the consulting engineer designation program, contact PEO Registration Officer Ian Daniels, P.Eng. The consulting engineer designation application form can be found at peo.on.ca/sites/default/files/2020-09/ApplicationCED.pdf. **e**

Engineering Dimensions would like to thank consulting engineer Douglas R. Barker, P.Eng., FEC, for his research that served as the basis for this article.

COUNCIL APPROVES TIMED GOVERNANCE WORKPLAN TO FACILITATE REFORM

As part of its goal to be a more focused, modern regulator, PEO is committed to governance reform. This column is the first in a series of updates on PEO's governance transformation.

By Marika Bigongiari

At its November 2020 meeting, PEO Council approved a timed workplan to support completion of the Governance Roadmap approved by Council in March 2020 (see p. 46). The workplan commits Council to reaching specific milestones of the roadmap at key dates over the next two years. At PEO's virtually held 2020 Chapters Leaders Conference (see p. 12), President Marisa Sterling, P.Eng., FEC, said of the Governance Roadmap: "It's a work in progress, but necessary to make us a more effective, appropriately focused Council—one that acts as an oversight board, leaving operations to the registrar and staff, and is focused on high-level strategy and guiding PEO as a regulatory leader."

IMPETUS TO CHANGE

In 2019, PEO underwent a voluntary external review of its regulatory performance that levied 15 recommendations on the regulator, each highlighting areas for improvement, including some that touched on governance. In 2019 and 2020, PEO benefited from the work of a governance consultant, which pointed in the direction of more comprehensive governance reform. Ultimately, in addition to adopting the roadmap, at its March 2020 meeting, Council received a Succession Planning Task Force report that also supported an increased focus on governance reform.

After a request-for-proposal process initiated by Council's approval of the roadmap, Governance Solutions Inc. (GSI), who had provided governance expertise to PEO in the previous year, was retained to prepare and implement a governance workplan. GSI will work with Council's Executive Committee (EXE), Council and senior management to achieve the goals reflected in the workplan. In its prior governance advisory role, GSI attended all Council meetings and supported councillors in their efforts to achieve a good governance culture and follow best practices, clarifying roles and responsibilities and guiding agenda creation, priority setting and demonstrating how to maintain appropriate public-interest focus. This guidance and support will be provided even as work on the roadmap unfolds.

FACILITATING GOVERNANCE REFORM

In its report outlining the workplan, GSI used a "four-step culture change process" in its approach to implement the key recommendations of the Governance Roadmap, which walks councillors through the following steps: dialogue to reach agreement, structure to embed and formalize, orientation to build awareness and education to build deep understanding and ongoing commitment. According to GSI, the ambitious two-year workplan will require perseverance to stay on track. It divides the defined governance work into "four seasonal phases" that highlight reviewing and improving governance effectiveness as follows:

- Phase 1: Council policies, enhancing its effectiveness through regulatory and governance mandates;
- Phase 2: PEO committees, with an aim to improve their structures and mandates;
- Phase 3: Council composition and renewal, including its selection process; and
- Phase 4: Chapters, volunteers and other areas, with an aim to review their governance effectiveness.

Each phase will take approximately six months, with some overlap between phases, and the first phase represents a significantly larger workload than the subsequent three. The work of Phase 1 is well underway, with the spotlight on progressing towards a Council that is focused on governance, while delegating operational matters to committees or appropriate PEO staff. This includes amending the president's terms of reference for leading Council, developing protocols on electronic meetings and in-camera sessions and implementing a councillor training and development program to help guide councillors during meetings. Phase 2 is set to begin this month.

GSI will guide Council on its governance journey and will propose specific changes and advise on implementation, while the EXE stewards the process, working with staff and GSI to determine what items are ready to put before Council, both informally as part of a series of "strategic conversations" and formally at public meetings. Council will approve all final decisions related to governance, including structure and documentation.

NEW VP GOVERNANCE

Further to its commitment to complete the multi-year Governance Roadmap, PEO recently recruited a staff vice president, governance. Liz Maier, who steps into her new role this month, will lead the governance strategy behind the regulator's cultural change, as well as restructure PEO's secretariat office to ensure the structure, processes and practices needed to support the organization's statutory mandate are supported, while also respecting the separate accountabilities of Council and the CEO/registrar. **e**

Attend Virtually

The following events can be attended via videoconferencing (see individual websites for details).

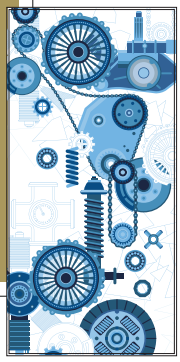
January 2021

JANUARY 21–22
International Conference on Advanced Architectural Engineering and Facade Design
waset.org/advanced-architectural-engineering-and-facade-design-conference-in-january-2021-in-london

JANUARY 21–22
International Conference on Aeroacoustics
waset.org/aeroacoustics-conference-in-january-2021-in-london

JANUARY 28–29
International Conference on Bioinformatics, Computational Biology and Biomedical Engineering
waset.org/bioinformatics-computational-biology-and-biomedical-engineering-conference-in-january-2021-in-new-york

JANUARY 28–29
International Conference on Fluid Mechanics and Dynamics in Mechanical Engineering
waset.org/fluid-mechanics-and-dynamics-in-mechanical-engineering-conference-in-january-2021-in-new-york

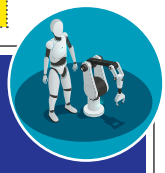


JANUARY 28–29
International Conference on Human-Friendly Mechatronics Systems Modelling
waset.org/human-friendly-mechatronics-systems-modelling-conference-in-january-2021-in-new-york

February 2021

FEBRUARY 15–16
International Conference on Fluids Engineering and Technology
waset.org/fluids-engineering-and-technology-conference-in-february-2021-in-london

March 2021



MARCH 11–12
International Conference on Aerospace Robotics and Autonomous Systems
waset.org/aerospace-robotics-and-autonomous-systems-conference-in-march-2021-in-miami

Listen

The Energy Gang
A weekly digest on energy, cleantech and the environment
greentechmedia.com/podcast/the-energy-gang

The Art of Engineering Podcast
An exploration of the evolution of a career in engineering and the overlap of art and engineering
stitcher.com/show/the-art-of-engineering

Talking Machines
A podcast about the world of machine learning
thetalkingmachines.com

Grinding Gears
A podcast that seeks to bridge the gap between engineering education and professional practice
podcasts.apple.com/us/podcast/assist-2-develops-grinding-gears-podcast/id1435116358

Read

Tales of the Globe Trot, by Marilyn Gladu, P.Eng., FEC, 2020: A collection of experiences from a chemical engineer and federal member of parliament. Gladu, the first female engineer in the House of Commons, chronicles her travels through a multitude of locations and situations beginning in 1984.

97 Things About Ethics Everyone in Data Science Should Know: Collective Wisdom from the Experts, by Bill Franks, 2020: The author presents a case for practising diligence when it comes to ethical behaviour, with case studies collected from contributors in technology and other industries, who share experiences and lessons learned from collecting, managing and analyzing data ethically.

Watch

Where Does Stormwater Go?
Rainwater and cities aren't always a great mix, but they can be.
youtube.com/watch?v=wdcXmerZWDc

Tesla's Battery Supply Problem
A discussion on Tesla's supply-chain logistics and the impact on their mission to accelerate the world's transition from fossil fuel power
youtube.com/watch?v=1Xwxe0wU4b8

P.ENGs AND ENGINEERING FIRMS HONOURED WITH AWARDS DOMESTICALLY AND ABROAD

By Marika Bigongiari

Aimy Bazylak, PhD, P.Eng., professor in the department of mechanical engineering at the University of Toronto, has been elected to the 2020 cohort of the Royal Society of Canada's College of New Scholars, Artists and Scientists. Photo: University of Toronto Engineering

Neil Thomson, PhD, P.Eng., University of Waterloo professor in the department of civil and environmental engineering, won the National Ground Water Association 2020 Keith E. Anderson Award. Photo: University of Waterloo Engineering

John Yeow, PhD, P.Eng., professor of systems design engineering, mechanical and mechatronics engineering and electrical and computer engineering at the University of Waterloo, won the Institute of Electrical and Electronics Engineers Outstanding Engineer Award. Photo: University of Waterloo Engineering

Her Excellency the Right Honourable Julie Payette, Governor General of Canada, announced 114 new appointments to the Order of Canada, one of the country's highest honours. The Order recognizes people whose service, innovation and compassion shape society, ignite imaginations and unite communities in Canada. This year's recipients include **Cristina Amon, ScD, P.Eng., FEC,** University of Toronto (U of T) professor in the department of mechanical engineering, alumni distinguished professor in bioengineering and dean emerita, faculty of applied science and engineering, who was honoured for her contributions to the advancement of the field of engineering and to research and innovation across Canada; and **Hoda ElMaraghy, PhD, P.Eng.,** University of Windsor distinguished university professor of mechanical, automotive and materials engineering, who was recognized for her contributions to the field of mechanical engineering, notably for her work in advancing manufacturing systems in Canada and abroad.

The Royal Society of Canada (RSC) and its members have elected 87 new fellows and named 50 new members to the College of New Scholars, Artists and Scientists. New fellows and members are elected by their peers for outstanding scholarly, scientific and artistic achievement, and recognition by the RSC is considered one of the highest honours one can achieve in the arts, social sciences and sciences. "The Royal Society of Canada is delighted to recognize this year's exceptional cohort of inductees, as the contributions of these outstanding artists, scholars and scientists have significantly impacted their respective disciplines at both national and international levels," RSC President Jeremy McNeil said. Among the new fellows elected to the Academy of Science, Division of Applied Sciences and Engineering are **Marco Amabili, PhD, P.Eng.,** a Canada research chair and professor of mechanical engineering at McGill University, who has made exceptional contributions to research in mechanical vibrations and nonlinear mechanics; **Abdulmotaleb El Saddik, PhD, P.Eng.,** University of Ottawa research chair and professor, School of Electrical Engineering and Computer Science, an internationally recognized leader in computer science and engineering research; **Jing Jiang, PhD, P.Eng.,** a professor and NSERC senior industrial research chair in the department of electrical and computer engineering at Western University, a pioneer in fault-tolerant control, instrumentation/control systems for nuclear power plants and renewable energy microgrids; and **Slobodan P. Simonovic, PhD, P.Eng.,** professor emeritus in the department of civil and environmental engineering at Western University, who is globally recognized for his unique interdisciplinary research in systems analysis. Among the new members named to the College of New Scholars, Artists and Scientists is **Aimy Bazylak, PhD, P.Eng.,** Canada research chair in thermofluidics for clean energy and professor in the department of mechanical engineering at U of T. Bazylak is working to advance fuel cells, electrolyzers and batteries for clean power and energy storage.

The Institute of Electrical and Electronics Engineers (IEEE) announced the winners of the 2020 IEEE Canada Awards. Among those recognized for exemplary contributions to engineering are **Robert Hanna, PhD, P.Eng.,** president of RPM Engineering, who won the A.G.L. McNaughton Award for contributions to industry and to the electrical engineering profession; **Rasheek Rifaat,**

P.Eng., principal electrical engineer at Talis Engineering, who won the R.H. Tanner Industry Leadership Award for contributions to improved safety of industrial power systems and the ongoing development of standards for power system protection and coordination; **Jing Jiang, PhD, P.Eng.,** who won the P.D. Ziogas Electric Power Award for contributions to electrical power systems from generation to distribution, through the research and development of advanced control and energy management systems; **John Yeow, PhD, P.Eng.,** Canada research chair in micro and nanodevices, director of the Advanced Micro and Nanodevice Lab and professor of systems design engineering, mechanical and mechatronics engineering and electrical and computer engineering at the University of Waterloo, who won the Outstanding Engineer Award in recognition of his contributions to the research and development and commercialization of micro/nanodevices for medical and industrial applications; **Amir Aghdam, PhD, P.Eng.,** professor of electrical and computer engineering at Concordia University, who won the J.M. Ham Outstanding Engineering Educator Award for training world-class engineers and researchers for today's industry and academia; **Keith Brown, PhD, P.Eng.,** of Ontario Power Generation, who won the W.S. Read Outstanding Service Award for outstanding service and dedication to IEEE Canada and to the engineering profession at large; and **Murray MacDonald, P.Eng.,** who won the M.B. Broughton Central Canada Merit Award for his contributions to the vitality of the London Section and contributions to Region 7 through IEEE central area chair and committee member roles.

Emily Thorn Corthay, P.Eng., founder and CEO of carbon management firm Thorn Associates and chair of the Ontario Society of Professional Engineers' Energy Task Force, has been awarded the 2020 International Energy Engineer of the Year award by the Association of Energy Engineers (AEE). The award is presented to individuals for outstanding achievements in the promotion of the practices, principles and procedures of energy engineering and for exemplary service to the association. The AEE is an international non-profit professional society whose mission is to promote the scientific and educational interests of those engaged in the energy industry and to foster action for sustainable development.

Colin McDonald, PhD, P.Eng., McMaster University's associate director of the integrated biomedical engineering and health sciences program and assistant professor, department of mechanical engineering, has won the university's MacPherson 2020 President's Award for Outstanding Contributions to Teaching and Learning. The award recognizes outstanding contributions to education through innovation, continued excellence in teaching and enhanced student learning. McDonald works in the areas of biomechanics (upper extremity and spine), in-vivo joint kinematics, musculoskeletal imaging and computer-guided surgery.

Neil Thomson, PhD, P.Eng., professor in the department of civil and environmental engineering at the University of Waterloo, was honoured with the National Ground Water Association (NGWA) 2020 Keith E. Anderson Award, which recognizes scientists and engineers who make notable contributions to the association. The NGWA is an international organization dedicated to advancing the knowledge of groundwater and professionals working in the field.

Mitra Mirhassani, PhD, P.Eng., an associate professor in electrical and computer engineering at the University of

SNC-Lavalin received an Award of Excellence and the prestigious Schreyer Award for the Samuel De Champlain Bridge Corridor project in Montreal, QC.

Morrison Hershfield won an Award of Excellence and the prestigious Tree for Life Award for the Building NX, Humber College project in Etobicoke, ON.

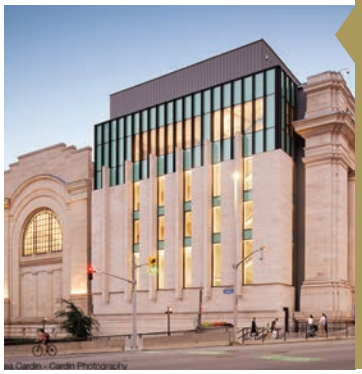
Accutech Engineering Inc. was presented with an Award of Excellence and the prestigious Engineering a Better Canada Award for the Arviligruaq Ilinniarvik School in Kugaaruk, Nunavut.

Associated Engineering received an Award of Excellence for the Dawson City Water Treatment Plant project in Yukon.

Associated Engineering received an Award of Excellence for the Bioengineering Restores Ecological Loss after Wildfires project in Fort McMurray, AB, and surrounding vicinity.

Pedelta Canada Inc. received an Award of Excellence for the Garrison Crossing–Fort York Pedestrian and Cycle Bridge project in Toronto, ON. Photo: Industryous Photography

RJC Engineers received an Award of Excellence for the GNW Pavilion project in Vancouver, BC. Photo: Robert-Stefanowicz



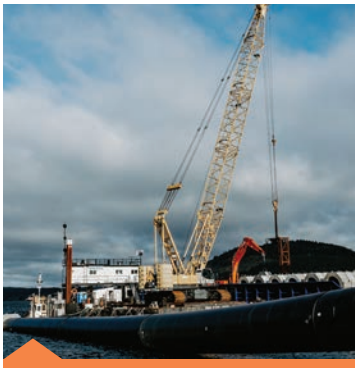
John G. Cooke & Associates Ltd. received an Award of Excellence for the Government Conference Centre Rehabilitation project in Ottawa, ON. Photo: Andrea Cardin, Cardin Photography

Windsor, received the inaugural Automotive Parts Manufacturers' Association Institute of Automotive Cybersecurity Outstanding Individual Cyber Achievement Award for exemplar cybersecurity achievements in both education and her research on autonomous vehicles, hardware and cybersecurity. The award recognizes an individual working in Canada with outstanding achievements in education, technology, governance and assessments. Mirhassani was also recently recognized as one of Canada's Top Women in Cyber Security by IT World Canada.

Yu Sun, PhD, P.Eng., a professor in the department of mechanical and industrial engineering, Institute of Biomaterials and Biomedical Engineering, department of electrical and computer engineering and department of computer science, as well as Canada research chair in micro- and nanoengineering systems and director of the Robotics Institute at U of T, was recognized with the 2021 Canadian Society for Mechanical Engineering (CSME) Mechatronics Medal for exceptional contributions to robotics and automation at micro-nano scales. The CSME awards honour members who have made outstanding contributions to specific areas of mechanical engineering in Canada.

The 2020 Canadian Consulting Engineering Awards were celebrated virtually, where projects around the globe designed by Canadian engineering firms were honoured for exemplifying the highest standard of engineering excellence. The prestigious awards, which honour outstanding achievements in the consulting engineering industry, are presented jointly by the Association of Consulting Engineering Companies–Canada and *Canadian Consulting Engineer* magazine. Up to 20 Awards of Excellence are presented each year in a variety of categories. In addition, five Special Awards, designated by the jury from projects entered in all categories, are presented. Among this year's winners is **SNC-Lavalin**, which received an Award of Excellence for the Samuel De Champlain Bridge Corridor project in Montreal, QC. This project was also honoured with the prestigious Schreyer Award for demonstrating the highest degree of technical merit and innovation. An Award of Excellence was presented to **Morrison Hershfield** for the Building NX, Humber College project in Etobicoke, ON. This project was also honoured with the Tree for Life Award for demonstrating outstanding environmental stewardship. An Award of Excellence was presented to **Accutech Engineering Inc.** for the Arviligruaq Ilinniarvik School located in Kugaaruk, Nunavut. This project was also honoured with the Engineering a Better Canada Award for best showcasing how engineering enhances the social, economic or cultural quality of life of Canadians. **Associated Engineering** received Awards of Excellence for the Dawson City Water Treatment Plant project in Yukon and its Bioengineering Restores Ecological Loss after Wildfires project in Fort McMurray, AB, and surrounding vicinity. **Pedelta Canada Inc.** received an Award of Excellence for the Garrison Crossing–Fort York Pedestrian and Cycle Bridge project in Toronto, ON. **RJC Engineers** received an Award of Excellence for the GNW Pavilion project in Vancouver, BC. **John G. Cooke & Associates Ltd.** received Awards of Excellence for two projects in Ottawa, ON: the Government Conference Centre Rehabilitation project as

well as the West Block Rehabilitation project in its joint venture with **Ojdrovic Engineering Inc. Hatch** received Awards of Excellence for the Mid Halton Wastewater Treatment Plant, Micro-Hydro Facility project in Oakville, ON, the Vaudreuil VB 2022–Phase I project in Saguenay, QC, and the Grand Falls Dam and Spillway Rehabilitation project in Grand Falls, NL. **WSP** received an Award of Excellence for the Infrastructure Improvements to the National Assembly of Quebec project in Quebec City, QC. **AECOM** received an Award of Excellence for the McLoughlin Point WWTP HDPE Outfall project in Victoria, BC. **BBA** received an Award of Excellence for the Meliadine Mine Cogeneration Plant project in Rankin Inlet, Nunavut. **Englobe** received an Award of Excellence for the Mould Bay Causeway Reconstruction project in Prince Patrick Island, NWT. **Robinson Consultants Inc.** received an Award of Excellence for the Northwest Arm Trunk Sewer Rehabilitation Project in Halifax, NS. And **Dillon Consulting Limited** received an Award of Excellence for the Rehabilitation of Historic Blackfriars Bridge project in London, ON. e



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Hatch received an Award of Excellence for the Grand Falls Dam and Spillway Rehabilitation project in Grand Falls, NL.

COUNCIL APPROVES ANTI-RACISM AND ANTI-DISCRIMINATION STRATEGY

By Nicole Axworthy

537TH MEETING, NOVEMBER 20, 2020

At its November 2020 meeting, Council discussed and approved an exploratory working group to develop recommendations that will allow PEO to identify, study and address any issues of systemic racism and discrimination that fall within its mandate. The motion included approving the appointment of a four-member working group, comprised of East Central Region Councillor Peter Cushman, P.Eng., as chair and West Central Region Councillor Lisa MacCumber, P.Eng., FEC, as vice chair of the working group. Two other councillors who volunteered were randomly selected to join the team: Lieutenant Governor-in-Council Appointee Qadira Jackson Kouakou, LLB, and Western Region Councillor Wayne Kershaw, P.Eng., FEC.

Council tasked the working group to scope out potential vulnerabilities to systemic racism and discrimination within the engineering profession and within the range of activities overseen by PEO and propose best practices for identifying, studying and addressing any vulnerabilities that exist. Council also instructed the CEO/registrar to recruit a qualified consultant skilled in equity, diversity and inclusion to help guide and support the work, up to a maximum budget of $50,000. The decision to form the working group comes as the problem of institutionalized and systemic racism continue to be a widespread, renewed concern for the public.

At its September 2020 meeting, Council discussed a similar motion but ultimately postponed it to the November meeting, directing the CEO/registrar to work with the mover and seconder of the motion to investigate any potential elements of racism or discrimination with PEO's culture and operations and come back to Council with a recommendation on how to proceed (see In Council, *Engineering Dimensions*, November/December 2020, p. 35). Consultation identified that before PEO takes any specific action, the range of vulnerabilities need to be appropriately scoped and defined and that an expert consultant guide such a review. After gaining familiarity with the role and work of PEO, the consultant can assist the working group with the development of more specific proposals for identifying, studying and addressing issues of systemic discrimination within PEO's scope of influence. The working group is expected to report back to Council with specific recommendations before PEO's 2021 Annual General Meeting in May.

TIMED GOVERNANCE WORKPLAN AND DIRECTIVES

Council approved a timed workplan that will serve as a general guide to achieve the Governance Roadmap that Council previously approved in principle at its March 2020 meeting (see In Council, *Engineering Dimensions*, May/June 2020, p. 50). The workplan divides the governance work into four phases over two years: Council polices, committees, Council composition and chapters and volunteers. At the meeting, some councillors voiced their concerns about the project's aggressive timeline and that it does not allow for input from the PEO membership. However, President Marisa Sterling, P.Eng., FEC, reminded Council that it is just the timeline that is being approved and that the roadmap itself has already been approved by Council.

Council also approved high-level directives that will serve to further develop more detailed principles and governance policies and eventual bylaw and legislative changes, as required, to achieve the Governance Roadmap. The 11 statements include high-level decisions, or goals, such as that Council will be a governing-type board; Council will be primarily a regulator; Council members will only serve on governance committees; PEO will use regulatory committees that add value to its role as a regulator; Council will right-size itself to an appropriate number based on its mandate, needs, competencies and diversity considerations; Council will adopt a risk model to measure and report on the protection of the public interest; and PEO will adopt a mandatory governance orientation and education program for councillors, senior staff and committee members.

Together with the approval of the timed workplan, this motion enables the governance work to continue in the areas specified under the direction of the Executive Committee and supported by informal strategic conversations with councillors and staff. *Engineering Dimensions* will continue to report on the progress of the roadmap and workplan in the Governance section (see p. 40) over the next two years.

SUBCOMMITTEE FORMED TO REVISE GUIDELINE

At its November meeting, Council approved a motion to authorize the Professional Standards Committee (PSC) to form a subcommittee to review the existing guideline *Professional Engineers Providing Acoustical Engineering Services in Land-Use Planning*. The guideline was last revised in 1998 and since then, there have been numerous changes to the standards, including changes to legislation such as the *Environmental Protection Act* and the *Planning Act*. The motion allows the subcommittee to revise the guidelines to better reflect current best practices, based on changes to legislation, bylaws and other current regulatory and ethical considerations affecting the industry and professional engineering. The PSC will direct staff to find volunteers for the new subcommittee to begin work on the

guideline. During the development of the guideline, PEO staff and subcommittee members will consult with stakeholders and practitioners and a draft document will be posted on PEO's website for public consultation before being finalized.

2021 OPERATING AND CAPITAL BUDGETS APPROVED

Council approved the draft 2021 operating and capital budgets, as recommended by the Finance Committee. Total revenues in 2021 are budgeted at $31.7 million and total expenses for sustaining regular day-to-day or core operations are budgeted at $30.2 million, resulting in an excess of revenues over expenses of $1.4 million. In addition to these expenses, an additional spend of $1.4 million is budgeted for various projects and Council initiatives, resulting in a surplus of $15,000.

The 2021 budgeted revenue is planned to be $32 million, representing an increase of $1.6 million, or 5.2 per cent, over the 2020 forecasted revenue. The main factors contributing to the increase are:

- An increase in P.Eng. revenues of $167,000, or 1 per cent, due to the relatively flat growth in P.Eng. membership in 2021. This flat growth is due to the continued uncertainty of the impact of the ongoing pandemic. P.Eng. revenues for 2020 are expected to be lower than budget by $876,000, or 5 per cent, also due to the impact of the pandemic;
- An increase in registration, exam and other fees of $1.2 million, or 14.4 per cent, largely due to the collection of revenues for the National Professional Practice Exam (NPPE), which has been outsourced to the Association of Professional Engineers and Geoscientists of Alberta (APEGA);
- An increase in PEO headquarters revenues of $134,000, or 5.5 per cent, due to the recovery of higher operating costs and slightly higher parking revenue; and
- An increase of $50,000, or 10 per cent, in investment revenue due to the expected performance of the investment portfolio.

The 2021 budgeted expenses for regular operations are expected to be $30.2 million, which represents an increase of $5.7 million, or 23 per cent, over 2020 forecasted expenses. Some of the factors contributing to this increase are:

- An increase in employee salaries and benefits and retiree and future benefits of $3 million over the 2020 forecast due to an increase in headcount, a 3.5 per cent increase in staff salary for merit increases/CPI adjustments and pension top-up contributions;
- An increase of $1.2 million for purchased services, which is largely due to the monies paid to APEGA for the NPPE and to a lesser extent due to higher costs for catering, event meals and related expenses for hosting the annual general meeting, Order of Honour and Volunteer Leadership Conference in Ottawa, costs for producing videos for the Ontario Professional Engineers Awards gala and higher costs for scanning licensing records;
- An increase of $825,000 for chapters due to higher allotments in 2021, higher spend for National Engineering Month, reinstatement of chapter scholarships and expenses for various events such as the Chapter Leaders Conference and Regional Councillors Committee meetings; and
- An increase of $240,000 in volunteer business expenses due to higher costs for meals, mileage, accommodation and travel-related expenses for attending various events, committee meetings and conferences.

The above are partially offset by:

- A reduction of $333,000 in amortization, largely due to fewer capital projects in 2021 and the full amortization of some old equipment; and
- A reduction of $79,000 in PEO headquarters expenses, largely due to a decrease in depreciation, amortization of leasing costs and mortgage interest expense.

The 2021 capital budget is $470,000 and is comprised of capital improvements to PEO headquarters ($220,000) and COVID-19-related arrangements to help staff and volunteers return to work ($250,000). Capital improvements include $67,000 for replacing defective exterior windows, $47,000 for exterior wall survey and water drainage–related work, $30,000 for the assessment of the parking garage structure and $25,000 for a sprinkler assessment study for fire protection.

BORROWING RESOLUTION

Council approved a motion to renew PEO's existing operating line of credit with Scotiabank until January 31, 2022. This includes an operating overdraft up to $250,000 and use of corporate credit cards with an aggregate limit of up to $120,000. e

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Deadline for March/April 2021 is January 25, 2021. Deadline for May/June 2021 is March 25, 2021.

PEO's tent must be in order

Claude Laguë, PhD, P.Eng., ing., FEC, Ottawa, ON

Thank you to President Marisa Sterling, P.Eng., FEC, Associate Editor Marika Bigongiari and all the colleagues who contributed to our ongoing and necessary reflections regarding the regulation of our profession in the November/December 2020 issue of *Engineering Dimensions* ("PEO's big tent: The emerging disciplines conundrum," p. 30). Using a similar "tent" analogy and extending it to the broader concept of "camping," I first submit that engineering is not the only regulated profession that has to fit increasing numbers of more diverse campers under its regulatory tent. Medicine and other health-related professions also have to deal with fields of practice that are evolving and diversifying.

Associate Editor Bigongiari appropriately reminded us of the legal definition of professional engineering in our province according to the *Professional Engineers Act*. Unless the legislator changes that definition—and not until such time, if he chooses to do so at some point in the future (in Québec, it took more than 20 years to come up with a new and improved *Loi sur les Ingénieurs* that includes a revised definition of the practice of professional engineering in that province)—I also submit that PEO's tent has to house all the campers who are engaged in the practice of professional engineering according to its legal definition. And irrespective of how many or how diverse those campers are, PEO's tent must be in order. The fact that too many engineering campers continue to perform acts that require the application of engineering principles and concern the safeguarding of life, health, property, economic interest, the public welfare or the environment without being under PEO's tent is a sure sign that this is not the case.

Making our future safer

Peter Broad, P.Eng., FEC, London, ON

When we know what we are doing, life is (relatively) easy. In engineering, forces are equal and opposite and materials are generally coherent and non-toxic. As life becomes more complex, we accept that we don't have all the answers. There are exceptions—those who know it all and rush in with complex and unstable solutions—but in general a little effort will locate a teacher who understands the problem.

But how do we solve problems that no one has faced before? Those latent unknown "unknowns" the future is certainly going to throw at us, and expect an "engineered solution"? Unfortunately, there are always implications that were somehow overlooked. Our historical answer has been to appoint a regulator, who relies on a wide expertise of knowledge in order to derive and arbitrate best-fit solutions. Ultimately, more knowledge may be discovered, and the regulator's opinion will be accepted or surpassed by future generations.

At this time, we may suspect that some may have less concern about the future of our profession. You may have read the concerns of some members in *Engineering Dimensions* and perhaps elsewhere. As members, we share the responsibility to elect our governing Council. If you understand the complexity of this task—of our need to employ our knowledge to protect those who merely watch in awe as our engineering structures soar to new heights—then I suggest you consider participating on PEO Council or in a chapter or committee group that is seeking to ensure PEO meets its expectations. It is our diversity, not our commonality, that enables us to self-regulate in the public interest. Thus, the more you participate, in whatever form, the larger the problems PEO can solve and the closer we'll come to our goal of public protection. According to our *Professional Engineers Act*, all licence holders are "members" of PEO, so your input is important—your remittances pay for PEO's activities. I hope you will all vote in the 2021 elections, but if only half of you do, it will be a vast improvement over past years.

Understanding the engineering labour market

Paul Martin, P.Eng., former director,
Ontario Society of Professional Engineers,
North York, ON

In President Sterling's recent message in *Engineering Dimensions* ("Reimagining the identity of engineers in a changing world," November/December 2020, p. 6), she mentions that roughly 20 per cent of Ontario engineering graduates are "captured" into PEO licensure and muses about why that might be. In a subsequent piece about engineering compensation in the same issue, it was noted that several engineering subdisciplines were among the top 10 highest-paid fields of work by bachelor's degree graduates in Canada after five years of employment (see "Statistics Canada reports that engineering graduates are top earners across Canada," p. 12).

The key pieces of information necessary to understand the actual, rather than imagined, labour market for engineers in Ontario, is available here: ospe.on.ca/public/documents/advocacy/2015-crisis-in-engineering-labour-market.pdf. Page 8 of OSPE's report, *Crisis in Ontario's Engineering Labour Market: Underemployment Among Ontario's Engineering-Degree Holders,* makes the connection: Per the 2006 census, only 31 per cent of Canadian resident engineers worked as engineers or engineering managers, which is the lowest match rate between education and employment of any regulated profession in Canada. Figure 2 shows the trend of falling match rate has been long established, ignored and continues to worsen. If only 31 per cent (and clearly in 2020, less than 31 per cent) of people with engineering degrees actually work as engineers in Canada, capturing 20 per cent of our own graduates into licensure is surprisingly good. Before you conclude that the 70-ish per cent who don't work as engineers chose that career path deliberately: Per Figure 3 (p. 9) of the same report, 33 per cent of engineering grads worked in fields requiring no university degree of any kind. The median earnings of that group are 20 per cent lower than those who work as engineers.

The rather obvious, dramatic and growing underemployment problem in our profession has also been long known, and long ignored. It is possible for those lucky few engineering grads who transition successfully into our profession to be among the top earners of their demographic, while at the same time, engineering is a less-than-stellar choice of education for the much larger group who make up the balance of engineering grads. The engineering labour market isn't a tale of just one kind of engineer—it's a tale of at least two. There's the lucky group who gain access to our profession and go on to licensure and comparatively good earnings and who read *Engineering Dimensions* from time to time, and there's the much larger group who don't.

PEO has another key piece of information, found on page 6 of the report. PEO surveys fourth-year engineering students about their intentions on graduation. Consistently, well over 90 per cent either definitely or probably will seek engineering employment. Only about half of them succeed. Consider that carefully when recommending to young people whether or not to pursue an engineering education—a reminder that, as professionals, we are duty-bound to consider the real data, rather than relying on our own anecdotal experiences when recommending policy of public importance.

LETTERS TO THE EDITOR are welcomed, but must be kept to no more than 500 words, and are subject to editing for length, clarity and style. Publication is at the editor's discretion; unsigned letters will not be published. The ideas expressed do not necessarily reflect the opinions and policies of the association, nor does the association assume responsibility for the opinions expressed. Emailed letters should be sent with "Letter to the editor" in the subject line. All letters pertaining to a current PEO issue are also forwarded to the appropriate committee for information. Address letters to editor@peo.on.ca.

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ARE YOU INVOLVED IN YOUR LOCAL PEO CHAPTER?

PLEASE MAKE NOTE OF THE UPCOMING CHAPTER ANNUAL GENERAL MEETINGS, CURRENTLY BEING PLANNED AS VIRTUAL MEETINGS. REGISTERED ATTENDEES WILL BE UPDATED AS PLANNING PROGRESSES.

PEO BRAMPTON CHAPTER 2021 ANNUAL GENERAL MEETING
Friday, January 22, 2021, from 7 p.m. to 9 p.m. EST
Register at eventbrite.ca/e/brampton-chapter-annual-general-meeting-tickets-123057266597

PEO GRAND RIVER CHAPTER 2021 ANNUAL GENERAL MEETING
Monday, February 8, 2021, from 7 p.m. to 9 p.m. EST
Register at eventbrite.ca/e/peo-grand-river-agm-annual-general-meeting-tickets-126587234827

PEO KINGSTON CHAPTER 2021 ANNUAL GENERAL MEETING
Wednesday, February 17, 2021, from 7 p.m. to 9 p.m. EST
Email kingston@peo.on.ca to register.

PEO LAMBTON CHAPTER 2021 ANNUAL GENERAL MEETING
Thursday, January 28, 2021, at 6 p.m. EST
Visit peolambton.com for more details.

PEO LONDON CHAPTER 2021 ANNUAL GENERAL MEETING
Friday, March 5, 2021, from 12 p.m. to 2 p.m. EST
Register at eventbrite.ca/e/london-chapter-annual-general-meeting-tickets-121789045313

PEO PETERBOROUGH CHAPTER 2021 ANNUAL GENERAL MEETING
Monday, March 22, 2021, at 7 p.m. EST
Register at eventbrite.ca/e/peo-peterborough-2021-chapter-agm-tickets-129713178609

PEO SCARBOROUGH CHAPTER 2021 ANNUAL GENERAL MEETING
Saturday, January 23, 2021, from 9 a.m. to 12 p.m. EST
Register at eventbrite.ca/e/scarborough-chapter-annual-general-meeting-tickets-130013819835

PEO WILLOWDALE/THORNHILL CHAPTER 2021 ANNUAL GENERAL MEETING
Tuesday, March 2, 2021, at 6:30 p.m. EST
Register at attendee.gotowebinar.com/register/5705445412404981006

PEO YORK CHAPTER 2021 ANNUAL GENERAL MEETING
Thursday, February 25, 2021, from 6 p.m. to 10 p.m. EST
Register at peoyork2021-agm.eventbrite.ca